

Canadian
Journal of
Fisheries and
Aquatic
Sciences

Journal
canadien des
sciences
halieutiques et
aquatiques



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The *Canadian Journal of Fisheries and Aquatic Sciences* has been published continuously since 1901, previously as *Contributions to Canadian Biology* 1901–25, *Contributions to Canadian Biology and Fisheries* 1926–34, *Journal of the Biological Board of Canada* 1934–37, and *Journal of the Fisheries Research Board of Canada* 1938–79.

Editorial Policy

The *Journal* publishes original research articles, critical reviews, perspectives (essays of opinion or hypothesis), and comments. Papers may concern cells, organisms, populations, ecosystems, or processes that affect aquatic production systems, and they should lead to identifiable conclusions or syntheses, which variously may amplify, modify, question, or redirect accumulated knowledge embodied in contemporary perceptions of a particular state of fisheries and aquatic sciences. They should demonstrate clearly a contribution to knowledge beyond the confirmation state. Originality should relate to more than the particular (a certain year, place, taxon, or chemical compound) such that existing understanding is reformulated or extended.

It would assist the Editors if prospective authors identified briefly by covering letter (a) aspects of their papers that meet the foregoing objectives, (b) potential referees, and (c) other manuscripts contemplated or in press containing the same or similar information.

Submissions in English or French are acceptable. The information must be original, that is, not copyrighted, published, or submitted elsewhere except in abstract form or unless by written consent of the Editor. The *Journal* accepts no responsibility for statements made by contributors. The use of proprietary names does not imply endorsement of the product or company.

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Issues from 1934 through the current volume can be purchased on 16- or 35-mm microfilm. Photocopies of individual articles or issues can be purchased from Xerox University Microfilms, 300 North Zeeb Road, Ann Arbor, Michigan 48106, USA.

Printed in Canada by: The Runge Press Limited, Ottawa

Imprimé au Canada par: The Runge Press Limited, Ottawa

Design: Ludvic Saleh & Associates, Ottawa

Conception graphique: Ludvic Saleh & Associates, Ottawa

Publié sans interruption depuis 1901, le *Journal canadien des sciences halieutiques et aquatiques* a paru sous plusieurs titres : *Contributions to Canadian Biology* 1901–1925, *Contributions to Canadian Biology and Fisheries* 1926–1934, *Journal of the Biological Board of Canada* 1934–1937 et *Journal de l'office des recherches sur les pêcheries du Canada* 1938–1979.

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Le *Journal* publie des articles fondés sur une recherche originale, des critiques, des essais portant sur une opinion ou une hypothèse (perspectives) et des commentaires. Les textes peuvent avoir trait aux cellules, aux organismes, aux populations, aux écosystèmes ou aux processus qui influent sur les systèmes de production aquatique. Ils doivent aboutir à des conclusions ou synthèses précises qui, de diverses façons, peuvent accroître, modifier, remettre en question ou réorienter le bagage actuel des connaissances et perceptions dans une discipline donnée des sciences aquatiques. Ils doivent clairement démontrer qu'ils contribuent aux connaissances en faisant plus que corroborer des faits. L'originalité doit dépasser le caractère particulier (une année, un endroit, un taxon ou un composé chimique donné) et tenir à une épuration ou à une reformulation des connaissances actuelles.

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Guides

Le guide des auteurs et des secrétaires d'auteurs paraît dans la première livraison de chaque volume et est offert gratuitement par le *Journal*.

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Canadian Journal of Fisheries and Aquatic Sciences

Journal canadien des sciences halieutiques et aquatiques

Volume 47, Index 1990

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The Journal is abstracted or indexed in:/Le Journal est résumé ou signalé dans :

Aquatic Sciences and Fisheries Abstracts, Biological Abstracts, Chemical Abstracts, Current Awareness in Biological Sciences, Current Contents, FAO
Freshwater and Aquaculture Contents Tables, FAO Marine Science Contents Tables, Oceanic Abstracts, and Science Citation Index



PREFACE/PRÉFACE

In 1968, the Fisheries Research Board of Canada published Bulletin 164, a subject-author index and list of its publications to 1964. Miscellaneous Special Publication 18, covering the period 1965 to 1972, was published in 1973. Between 1973 and 1976, annual subject-author indexes and lists of publications were published as separate issues of the Journal.

Since 1977, the annual index has contained a subject index, an author index, and a list of publications. Entries in the subject index consist of an entry term, a number of modifying terms, if required, and a taxonomic or common name and a geographic term, if appropriate. Entry terms and, wherever possible, modifying terms are selected from the *Aquatic sciences and fisheries thesaurus*, ASFIS Reference Series No.6. However, it is sometimes necessary to use modifying terms not found in the *Thesaurus* to convey adequately all concepts. The principal authority for taxonomic and common names for Canadian and American marine and freshwater fishes is *A list of common and scientific names of fishes from the United States and Canada* (4th ed., 1980), Special Publication No.12 of the American Fisheries Society. Where authors have used names or spellings not conforming to those recommended, entry terms for such names are included, referring to the recommended names under which documents are indexed.

En 1968, l'Office des recherches sur les pêcheries du Canada publiait le bulletin no 164 qui constituait un index des matières et des auteurs, ainsi qu'une liste de ses publications jusqu'à 1964. Le no 18 des Publications diverses spéciales, visant la période de 1965 à 1972, a paru en 1973. Entre 1973 et 1976, on a publié chaque année un index des matières et des auteurs ainsi qu'une liste des publications dans un numéro distinct du Journal.

Depuis 1977, l'index annuel comprend un répertoire des matières et des auteurs et une liste des publications. Les notices de l'index des matières sont composées d'un terme d'entrée, d'un certain nombre de termes modificatifs si nécessaire, ainsi que d'une désignation taxonomique ou d'une appellation courante et d'un terme géographique au besoin. Les termes d'entrée et, dans la mesure du possible, les termes modificatifs sont choisis d'après l'*Aquatic sciences and fisheries thesaurus*, no 6 de la série de référence d'ASFIS. Cependant, il est parfois nécessaire d'utiliser des termes modificatifs qu'on ne trouve pas dans le *Thesaurus* pour exprimer convenablement tous les concepts. Le principal ouvrage qui fasse autorité en ce qui concerne les appellations communes et taxonomiques des espèces de poisson d'eaux douces et marines des États-Unis et du Canada est intitulé *A list of common and scientific names of fishes from the United States and Canada* (4e édition, 1980), Publication spéciale no 12 de l'American Fisheries Society. Quand un auteur utilise des désignations ou un orthographe différents des formes recommandées, on inclut les termes d'entrée pour ces noms en renvoyant aux noms recommandés sous lesquels les documents sont indexés.

ABBREVIATIONS

Publications

- J - Canadian Journal of Fisheries and Aquatic Sciences
SP - Canadian Special Publication of Fisheries and Aquatic Sciences
B - Canadian Bulletin of Fisheries and Aquatic Sciences
AR - Annual Report
TF - Canadian Technical Report of Fisheries and Aquatic Sciences
MF - Canadian Manuscript Report of Fisheries and Aquatic Sciences
DF - Canadian Data Report of Fisheries and Aquatic Sciences
IF - Canadian Industry Report of Fisheries and Aquatic Sciences
TH - Canadian Technical Report of Hydrography and Ocean Sciences
DH - Canadian Data Report of Hydrography and Ocean Sciences
CH - Canadian Contractor Report of Hydrography and Ocean Sciences
TS - Canadian Translation of Fisheries and Aquatic Sciences
EC - Economic and Commercial Analysis Report

R. - Reprinted
Rev. - Revised
F. - French

Geographic abbreviations

- | | |
|-------------------------|--------------------------------|
| Alta. - Alberta | N.W.T. - Northwest Territories |
| B.C. - British Columbia | Ont. - Ontario |
| Man. - Manitoba | P.E.I. - Prince Edward Island |
| N.B. - New Brunswick | Que. - Quebec |
| Nfld. - Newfoundland | Sask. - Saskatchewan |
| N.S. - Nova Scotia | Y.T. - Yukon Territory |

The names of states in the United States of America are abbreviated according to the *CBE Style Manual*.

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|-----------------|----------------|
| Atl. - Atlantic | Pac. - Pacific |
| I. - Island | R. - River |
| L. - Lake | |

Certain geographic areas have their major subdivisions designated by N(north), S(south), E(east), W(west), NW(northwest), NE(northeast), etc.

ABRÉVIATIONS

Publications

- J - Journal canadien des sciences halieutiques et aquatiques
SP - Publication spéciale canadienne des sciences halieutiques et aquatiques
B - Bulletin canadien des sciences halieutiques et aquatiques
AR - Rapport annuel
TF - Rapport technique canadien des sciences halieutiques et aquatiques
MF - Rapport manuscrit canadien des sciences halieutiques et aquatiques
DF - Rapport statistique canadien des sciences halieutiques et aquatiques
IF - Rapport canadien à l'industrie sur les sciences halieutiques et aquatiques
TH - Rapport technique canadien sur l'hydrographie et les sciences océaniques
DH - Rapport statistique canadien sur l'hydrographie et les sciences océaniques
CH - Rapport canadien des entrepreneurs sur l'hydrographie et les sciences océaniques
TS - Traduction canadienne des sciences halieutiques et aquatiques
EC - Rapport de l'analyse économique et commerciale

R. - réimprimé
Rev. - révisé
F. - français

Abréviations de noms géographiques

- | | |
|-----------------------------|------------------------------------|
| Alta. - Alberta | N.W.T. - Territoires du Nord-Ouest |
| B.C. - Colombie-Britannique | Ont. - Ontario |
| Man. - Manitoba | P.E.I. - Ile-du-Prince-Édouard |
| N.B. - Nouveau-Brunswick | Que. - Québec |
| Nfld. - Terre-Neuve | Sask. - Saskatchewan |
| N.S. - Nouvelle-Écosse | Y.T. - Territoire du Yukon |

Les abréviations des noms des états des États-Unis sont tirées du *CBE Style Manual*.

- | | |
|-------------------|------------------|
| Atl. - Atlantique | Pac. - Pacifique |
| I. - Ile | R. - Rivière |
| L. - Lac | |

Certaines régions géographiques ont leurs principales subdivisions indiquées de la façon suivante : N(nord), S(sud), E(est), W(ouest), NW(nord-ouest), NE(nord-est), etc.

LIST OF ESTABLISHMENTS

The number in front of each address corresponds to the number shown at the end of titles in some of the listed series of publications to indicate from which establishment the publication originated.

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LISTE DES ÉTABLISSEMENTS

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- (1) Ministère des Pêches et des Océans
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|---|---|

LIST OF THE PRINCIPAL INDEX TERMS USED IN THE SUBJECT INDEX
LISTE DES PRINCIPAUX TERMES UTILISES DANS L'INDEX DES MATIERES

To reduce the size of the subject index, some specific concepts have been grouped together under more general index terms; these are listed below. Publications dealing with fecundity, for example, are to be found under Population Dynamics.

Pour réduire l'espace occupé par l'index des matières, certains concepts ont été groupés sous des termes plus généraux (voir liste ci-dessous). Par exemple, les publications traitant de fécondité seront classées sous "Population Dynamics".

<u>AGE AND GROWTH</u> (Age determination, Growth patterns and rates)	<u>INTRODUCED SPECIES</u>
<u>AQUACULTURE</u> (Freshwater and Marine, Animal and Plant; Hatcheries)	<u>METEOROLOGY</u>
<u>BEHAVIOR</u>	<u>METHODOLOGY AND TECHNIQUES</u> (Laboratory methods; Analysis; Equipment)
<u>BIOGEOGRAPHY</u>	<u>MIGRATIONS AND TAGGING</u> (including Migratory behavior)
<u>COMPUTER PROGRAMS AND DATA PROCESSING</u>	<u>MODELS</u> (Mathematical; Analytical)
<u>CONFERENCES</u> (Symposia; Workshops)	<u>MORPHOLOGY AND TAXONOMY</u>
<u>CRUISES</u> (Fishery; Plankton; Oceanographic)	<u>NAVIGATION</u>
<u>DISEASES AND PARASITES</u>	<u>NEW GENERA</u>
<u>DISTRIBUTION AND ABUNDANCE</u> (Geographical; Vertical; Horizontal)	<u>NEW RECORDS</u>
<u>ECONOMICS AND SOCIOLOGY</u>	<u>NEW SPECIES</u>
<u>EGGS AND LARVAE</u>	<u>OCEANOGRAPHY AND LIMNOLOGY</u> (Physical; Chemical; Biological; Hydrology; Nutrients)
<u>ENVIRONMENTAL EFFECTS</u> (Effects of environmental conditions on organisms and fisheries)	<u>PHYSIOLOGY AND BIOCHEMISTRY</u> (including Metabolism)
<u>ENVIRONMENTAL IMPACT</u> (Effects of man-induced environmental changes on organisms and fisheries)	<u>PLANKTON</u> (Nanno-; Phyto-; Zoo-)
<u>FISH HANDLING</u> (Aquatic products and their handling)	<u>POLLUTION</u> (Pollutants; Pollution monitoring)
<u>FISHERIES AND FISHABLE STOCKS</u> (Statistics; Sampling; Stock assessment; Management; Gear; Surveys)	<u>POPULATION DYNAMICS</u> (Dynamical characteristics; Recruitment, Fecundity, Spawning; Maturity; Mortality)
<u>FISHES</u> (General)	<u>POPULATION STRUCTURE</u> (Structural characteristics; Age composition; Weight; Size)
<u>FOOD AND FEEDING</u> (including Feeding behavior)	<u>PREDATION AND COMPETITION</u> (including Interspecific and Intraspecific relationships)
<u>GENETICS</u> (Hybrids, Ploidy; Population)	<u>PRODUCTION</u> (Biological)
<u>HABITAT</u>	<u>REPRODUCTION</u> (Biology)
<u>HISTORICAL ACCOUNT</u>	<u>RESEARCH INSTITUTIONS</u>
<u>INFORMATION SERVICES</u> (Check lists; Manuals; Reports; Bibliographies)	<u>SPORT FISHING</u>
	<u>TOXICITY</u> (Toxicants; Toxicity tests)

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 : 2212 (growth, aging, otoliths, juveniles, Atlantic mackerel, Gulf of St. Lawrence)
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 : 2250 (developmental stages, sympatric populations, hybrids, sockeye salmon, kokanee)
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- : 169 (buoyancy, eggs, walleye pollock, Shelikof Strait)
- : 221 (environmental effects, recruitment, Pacific halibut)
- : 239 (environmental effects, water currents, larvae, walleye pollock, Shelikof Strait)
- ALASKA STATE, USA**
- J 47(1) : 136 (limnology, nutrients, transport, pink salmon, rainbow trout, Sashin Creek)
- (9) : 1684 (debris, wood, rivers, SE AK)
- (10) : 1920 (echo surveys, air bubbles, vertical migrations, Pacific herring, NE AK)
- : 1944 (activity patterns, feeding behavior, red king crab, Kodiak Bay)
- : 2039 (drift feeding, habitat, models, Arctic grayling, rivers)
- (12) : 2297 (habitat selection, competition, controlled conditions, coho salmon, Dolly Varden, Prince of Wales I.)
- SP 108 : 67 (catch statistics, environmental conditions, analysis, Pacific salmon, SE AK)
- ALEWIFE (*Alosa pseudoharengus*)**
- J 47(9) : 1738 (predation, plankton feeders, zooplankton, L. Michigan)
- TF 1705 (production, juveniles, Giant L., N.S.)
- ALGAE**
- J 47(1) : 128 (fertilization, growth, *Rhizosolenia eriensis*, *Cyclotella* spp., Sproat L., Vancouver I., B.C.)
- : 166 (species composition, fish removal, biomanipulation, L. Haugatjern, Norway)
- (2) : 432 (acidification, buffers, Bowland L., Ont.)
- (4) : 780 (sea ice, population structure, Magdalen Is., Gulf of St. Lawrence)
- (5) : 1011 (predation, green sea urchin, E Canada)
- (6) : 1085 (acidification, biomass, Zygnemataceae, lakes, Ont.)
- : 1166 (primary production, photosynthetic pigments, sedimentation)
- (7) : 1348 (sea ice, primary production, fine structure, Arctic)
- : 1402 (primary production, inorganic nutrients, seawater, sea ice, Barrow Strait, N.W.T.)
- (10) : 2057 (trophic relationships, food webs, secondary production, Wilson Creek, Bernheim Forest, KY)
- TF 1712 (marine algae, biological poisons, conferences, Canada)
- 1761 : 1 (algal blooms, pollution effects, aquaculture, marine fishes, Bay of Fundy, NW Atl.)
- Alosa aestivalis* (see HERRING, BLUEBACK)**
- pseudoharengus* (see ALEWIFE)**
- sapidissima* (see SHAD, AMERICAN)**
- AMNICOLA, MUD (*Ammicola limosus*) (*Ammicola limosa*)**
- J 47(9) : 1694 (pollution effects, acidification, reproduction)
- Ammicola limosus* (see AMNICOLA, MUD)**
- AMPHIPODA**
- DF 799 (taxonomy, morphology, Hyperiidea, Gammaridea, Beaufort Sea)
- ANCHOVY, JAPANESE (*Engraulis japonica*)**
- SP 108 : 111 (population dynamics, reproduction, Sagami Bay, Japan)
- ANCHOVY, SOUTH AFRICAN (*Engraulis capensis*)**
- J 47(7) : 1282 (stock assessment, echo surveys, random processes)
- Anoplopoma fimbria* (see SABLEFISH)**
- AQUACULTURE**
- J 47(1) : 180 (shrimp culture, respiration, models, ponds, *Penaeus*, Oahu, HI)
- (3) : 544 (pollution, palatability, channel catfish)
- (4) : 719 (genetics, rainbow trout)
- : 755 (growth, photoperiods, Atlantic salmon)
- : 766 (diseases, drugs, channel catfish)
- (7) : 1292 (growth regulators, hormones, water temperature, rainbow trout)
- : 1453 (fishery data, hatcheries, models, Pacific salmon, B.C.)
- (8) : 1518 (diets, vitamin C, bioaccumulation, rainbow trout)
- (9) : 1765 (stocking density, mortality, marine environment, coho salmon)
- (12) : 2339 (biological poisons, phytoplankton, Strait of Georgia, NE Pac.)
- TF 1715 (parasitism, Caligoida, Atlantic salmon, Bay of Fundy, NW Atl.)
- 1718 (triploids, induction, steelhead trout)
- 1724 (effluents, environmental impact, salmonids, Bay of Fundy, NW Atl.)
- 1725 (storage, salinity tolerance, sperm, Pacific halibut, sablefish)
- 1755 (water quality, dissolved substances, Atlantic salmon, Mersey R., N.S.)
- 1760 (pollution effects, aquaculture effluents, Atlantic salmon, Bay of Fundy, NW Atl.)
- 1761 (conferences, finfish, Canada, Norway)

- : 1 (algal blooms, pollution effects, marine fishes, Bay of Fundy, NW Atl.)
 - : 7 (fish health, water quality, Norway)
 - : 11 (pollution effects, aquaculture effluents, anoxic sediments, Bay of Fundy, NW Atl.)
 - : 19 (vibriosis, vaccination, Atlantic salmon, Norway)
 - : 25 (diseases, Atlantic salmon, Maritime Provinces, Nfld.)
 - : 31 (disease detection, methodology, salmonids)
 - : 41 (genetics, environmental effects, natural populations, salmonids, Norway)
 - : 49 (population genetics, bioselection, selective breeding, Atlantic salmon, St. Andrews, N.B.)
 - : 61 (genetics, culture tanks, Arctic char)
 - : 69 (artificial substrata, hatching, salmonids)
 - : 77 (feeding experiments, stocking density, growth, rainbow trout)
 - : 79 (light intensity, growth, juveniles, Atlantic salmon)
 - : 85 (parasite control, symbiosis, wrasses, Atlantic salmon)
 - : 91 (diets, Atlantic salmon, Atlantic cod, Atlantic halibut, American plaice, Norway)
 - : 99 (salinity tolerance, photoperiod, juveniles, Atlantic salmon)
 - : 107 (rearing, hydroelectric power plants, Atlantic salmon, Mactaquac, N.B.)
 - : 119 (mariculture, aquaculture techniques, osmoregulation, Arctic char)
 - : 125 (osmoregulation, growth hormones, Atlantic salmon)
 - : 133 (models, growth, environmental effects, chinook salmon)
 - : 137 (diets, fry, Atlantic cod, Atlantic halibut, turbot)
 - : 143 (tagging, research programs, Atlantic cod, Norway)
 - : 153 (aquaculture techniques, evaluation, Atlantic halibut, Norway)
 - : 161 (growth, larvae, Atlantic halibut)
 - : 169 (osmoregulation, salinity tolerance, Atlantic cod)
 - MF 2031 (bibliographies, scallops, World Waters)
 - 2084 (population genetics, bioselection, Arctic char, Fraser R., Labrador)
 - IF 201 (Atlantic cod, Nfld.)
 - TS 5492 (seeding, Yezo scallop, Pos'et Bay, Sea of Japan)
 - 5511 (polyploids, ovaries, sex hormones, rainbow trout)
 - EC 13 (economics, production, Canada)
 - 19 (market research, economics, blue mussel, Canada)
 - 27F (fishery economics, feasibility, Atlantic cod, Que.)
 - 54 (cost analysis, computer model, Pacific salmon, Atlantic salmon, B.C.)
- AQUATIC ANIMALS**
- TS 5518 (feeding, behavioral responses, chemical stimuli)
- AQUATIC PLANTS**
- J 47(2) : 357 (biomass, environmental effects, lakes, North America)
 - : 432 (acidification, buffers, Bowland L., Ont.)
 - (3) : 492 (pigments, tagging, Hudson R., NY)
 - (4) : 805 (distribution, abundance, echo surveys, Devils L., OR)
- ARCTIC**
- J 47(7) : 1348 (primary production, fine structure, sea ice, algae)
 - (9) : 1710 (stock assessment, distribution, environmental effects, demersal fisheries, shrimp, E Arctic)
 - (10) : 1986 (sea ice, production, bacteria, Frobisher Bay)
 - MF 1909 (bibliographies, marine fishes)
 - 1932 (check lists, marine fishes, new records)
 - 2063 (resource management, marine mammals, fishery resources, N.W.T., Yukon)
 - DH 5(21) (water temperature, salinity, current measurement, Queen Elizabeth I.)
 - 60(7) (hydrocarbons, sampling, methodology, Mackenzie R. delta)
 - 78 (oceanographic data, currents, temperature, Baffin Bay)
 - 79 (oceanographic data, currents, temperature, Baffin Bay)
 - TS 5503 (population structure, reproduction, Pacific walrus)
 - 5504 (census, resource conservation, Atlantic walrus)
- ARGENTINA**
- J 47(5) : 928 (biomass, fishes, lakes, reservoirs)
- Argopecten gibbus* (see SCALLOP, CALICO)
irradians (see SCALLOP, BAY)
- AUSTRALIA**
- J 47(7) : 1330 (population density, mortality, juveniles, western rock lobster, W Australia)
- B**
- BACTERIA**
- J 47(5) : 1027 (production, decomposers,

- Hartbeesport Dam, South Africa)
- (9) : 1813 (production, measurement, rivers, Ont.)
- : 1836 (bacterioplankton, food webs, grazing, L. Michigan)
- (10) : 1986 (production, sea ice, Frobisher Bay, Arctic)
- TF 1709 (trophic relationships, primary production, food webs, Great Lakes, North America)
- 1761 : 19 (vibriosis, vaccination, aquaculture, Atlantic salmon, Norway)
- : 25 (furunculosis, bacterial kidney disease, vibriosis, aquaculture, Maritime Provinces, Nfld.)
- : 31 (disease detection, methodology, furunculosis, bacterial kidney disease, aquaculture, salmonids)
- Bacterial kidney disease (BKD) (see BACTERIA)
- Baffin Island (see NORTHWEST TERRITORIES)
- BALTIC SEA
- TS 5515 (fecundity, roe, oogenesis, Atlantic cod)
- BASS, LARGEMOUTH (*Micropterus salmoides*)
- J 47(12) : 2358 (salinity tolerance, physiology, LA)
- BASS, STRIPED (*Morone saxatilis*)
- J 47(4) : 739 (lipoproteins, starvation)
- (8) : 1570 (stock identification, mathematical analysis, comparative studies)
- BEAUFORT SEA; BEAUFORT SEA SHELF
- J 47(11) : 2164 (environmental effects, winds, recruitment, Arctic cisco, Prudhoe Bay)
- MF 2047 (morphology, taxonomy, identification keys, Crustacea)
- 2048 (morphology, taxonomy, identification keys, Isopoda, S Beaufort Sea)
- DF 779 (ichthyoplankton surveys, population structure, food consumption)
- 799 (taxonomy, morphology, Amphipoda)
- DH 60(7) (hydrocarbons, sampling, methodology)
- BEHAVIOR
- J 47(1) : 174 (reproductive, males, pink salmon, Carp R., Ont.)
- (3) : 486 (vertical migrations, growth, fry, kokanee, Kootenay L., B.C.)
- : 566 (agonistic, genetics, coho salmon)
- (5) : 915 (aggressiveness, feeding, juveniles, brook trout)
- (9) : 1755 (vertical migrations, plankton feeders, zooplankton, lakes, B.C.)
- : 1779 (competition, feeding, growth, white perch, yellow perch, L. Erie)
- : 1803 (homing, spawning, muskellunge, Stony L., Ont.)
- : 1830 (interspecific relationships, long-finned squid, short-finned squid, N.S., Nfld.)
- (10) : 1944 (activity patterns, feeding, red king crab, Kodiak Bay, AK)
- : 1959 (homing, spawning, yellow perch, Lochaber L., N.S.)
- (11) : 2172 (agonistic, salinity tolerance, intraspecific relationships, juveniles, chinook salmon, Nanaimo R., B.C.)
- (12) : 2278 (interspecific competition, intraspecific competition, stocking organisms, brook trout, white sucker, lakes, Que.)
- : 2285 (stocking organisms, comparative studies, brook trout, white sucker, lakes, Que.)
- : 2380 (orientation, migrations, helminths, sockeye salmon, Great Central L., B.C.)
- : 2402 (reproductive, induced breeding, American lobster)
- B 222 : 227 (feeding, summer, grey seal, Anticosti I., Gulf of St. Lawrence)
- : 243 (feeding, grey seal, Isle of May, Orkney, Scotland)
- TF 1706 (orientation, computer programs)
- BELLE ISLE, STRAIT OF
- DF 784 (fishery surveys, primary production)
- Beluga (*Delphinapterus leucas*) (see WHALE, WHITE)
- BENTHOS
- J 47(2) : 440 (zoobenthos, acidification, buffers, stocking, lake trout, Bowland L., Ont.)
- (4) : 711 (distribution, abundance, habitat, invertebrates)
- (7) : 1364 (community composition, multivariate analysis, invertebrates, St. Lawrence R. estuary, Gulf of St. Lawrence)
- (10) : 1970 (ecological succession, ecosystem disturbance, L. Erie)
- : 1996 (ecological succession, ecosystem disturbance, L. Erie)
- B 222 : 47 (parasites, larvae, sealworm, invertebrates, Halifax, N.S.)
- TF 1726 (stereophotography, ocean floor, Scotian Shelf, NW Atl.)
- MF 2048 (morphology, taxonomy, identification keys, isopods, S Beaufort Sea)
- TH 122 (environmental impact, invertebrates, Vancouver Harbour, B.C.)
- DH 82 (check lists, invertebrates, Hastings Arm, Alice Arm, NE Pac.)

BERING SEA

- J 47(1) : 122 (age composition, population structure, models, females, northern fur seal, Pribilof Is.)
 (7) : 1307 (growth, water temperature, recruitment, red king crab, E Bering Sea)
 SP 108 : 353 (environmental effects, population number, walleye pollock, E Bering Sea)

BIOGEOGRAPHY

- J 47(6) : 1093 (DNA, sauger, walleye, zander, North America, Europe)
 DF 772 (watersheds, inventories, South Thompson R., B.C.)
 773 (watersheds, inventories, North Thompson R., B.C.)

Blackcod (see SABLEFISH)

BLACKFLY (*Simulium venustum*)

- J 47(10) : 2049 (models, economic analysis, insecticides)

BLOATER (*Coregonus hoyi*)

- J 47(3) : 524 (population dynamics, L. Michigan)

BLUEGILL (*Lepomis macrochirus*)

- J 47(4) : 789 (food, feeding, invertebrates, L. Opinicon, Ont.)
 (9) : 1664 (habitat selection, models, bioenergetics)

Boreogadus saida (see COD, ARCTIC)

Bosmina spp. (see CRUSTACEA)

Bothriocephalus opsariichthydis (see CESTODA)

Brama japonica (see POMFRET)

BRITISH COLUMBIA (PROVINCE), CANADA (see also NORTHEAST PACIFIC OCEAN)

- J 47(1) : 128 (fertilization, growth, *Rhizosolenia eriensis*, *Cyclotella* spp., Sproat L., Vancouver I.)
 : 145 (fishery management, harvesting, models, sockeye salmon, Fraser R.)
 (2) : 262 (nutrients, habitat improvement, Sproat L., Vancouver I.)
 : 346 (surface temperature, coastal zone)
 : 401 (population dynamics, annual variations, *Daphnia rosea*, *Holopedium gibberum*, lakes)
 (3) : 486 (growth, vertical migrations, fry, Kootenay L.)
 (4) : 725 (viruses, plankton, Sproat L., Vancouver I.)
 : 838 (reproduction, cycles, models, sockeye salmon, Adams R.)
 (5) : 852 (habitat, rootwads, coho salmon, steelhead trout, Kloiya Creek)
 : 862 (habitat improvement, growth,

coho salmon, steelhead trout, Keogh R.)

- (6) : 1194 (predator-prey relationships, mortality, cutthroat trout, threespine stickleback, Queen Charlotte Is.)
 (7) : 1453 (fishery data, hatcheries, models, Pacific salmon)
 (9) : 1755 (interspecific relationships, vertical migrations, zooplankton, sockeye salmon, threespine stickleback, lakes)
 : 1796 (vertical migrations, environmental factors, juveniles, sockeye salmon, lakes)
 (10) : 1846 (commercial fishing, fishing vessels, catch statistics, Pacific salmon, Vancouver I.)
 : 1963 (horizontal movements, vertical migrations, steelhead trout, Dean Channel, Fisher Channel)
 (11) : 2092 (population genetics, stock identification, genes, chinook salmon, Fraser R.)
 : 2172 (agonistic behavior, salinity tolerance, intraspecific relationships, juveniles, chinook salmon, Nanaimo R.)
 : 2181 (survival, ocean growth, body size, juveniles, coho salmon, Carnation Creek)
 : 2195 (commercial fishing, population structure, summer, Pacific hake, Vancouver I.)
 (12) : 2380 (orientation behavior, migrations, helminths, sockeye salmon, Great Central L.)
 SP 108 : 13 (fishery management, stock assessment, demersal fisheries)
 : 265 (environmental effects, water currents, fishes, off Vancouver I.)
 : 305 (environmental effects, water currents, abundance, megalops, Dungeness crab, off Vancouver I.)
 : 327 (environmental effects, recruitment, rock sole, N Hecate Strait)
 B 223 (environmental impact, forest industry, ecosystems, Pacific salmon, Carnation Creek)
 TF 1628 (age determination, scales, fresh water, chinook salmon)
 1690 (catch statistics, commercial fishing, historical account, Pacific salmon)
 1703 (mollusc fisheries, mortality, diseases, blue mussel)
 1731 (habitat improvement, diets, marshes, juveniles, Pacific salmon, Fraser R.)
 MF 1582 (stock assessment, sidestripe shrimp, Queen Charlotte Is.)
 2019(2) (spawning grounds, geographical distribution, Pacific herring, N B.C.)
 (3) (spawning grounds, geographical

- distribution, Pacific herring, Upper Central Coast)
- (4) (spawning grounds, geographical distribution, Pacific herring, Lower Central Coast, Johnstone Strait)
- 2021 (fishery surveys, streams, juveniles, salmonids, SE Clayoquot Sound, Vancouver I.)
- 2025 (feeding behavior, stomach content, Pacific cod)
- 2029 (exploratory fishing, echo surveys, rockfishes, off Brooks Peninsula, Vancouver I.)
- 2030 (biological sampling, fixation, Pacific herring)
- 2037 (fish eggs, predation, Pacific herring, Barkley Sound, Vancouver I.)
- 2038 (migrations, population structure, fishery statistics, sockeye salmon, Skeena R.)
- 2042 (sport fishing, mail surveys)
- 2046 (gillnets, rockfishes, NW Vancouver I.)
- 2050 (sport fishing, angling, catch/effort, coho salmon, chinook salmon, Vedder-Chilliwack R.)
- 2051 (sport fishing, angling, catch/effort, chinook salmon, Fraser R.)
- 2052 (catch statistics, harvesting, escapement, coho salmon, Fraser R.)
- 2053 (stock assessment, tagging, escapement, coho salmon, Salmon R.)
- 2065 (stock assessment, tagging, escapement, chinook salmon, Campbell R., Quinsam R.)
- 2066 (tagging, escapement, biological data, chinook salmon, Harrison R.)
- 2071 (habitat improvement, spawning grounds, channels, coho salmon)
- DF 765 (fishery surveys, historical account, fishways, Pacific salmon, steelhead trout, Meziadin R.)
- 768 (catch statistics, trawling, fishes, Fraser R.)
- 771 (distribution, abundance, population structure, Pacific salmon, Lower Fraser R.)
- 772 (watersheds, inventories, South Thompson R.)
- 773 (watersheds, inventories, North Thompson R.)
- 774 (feeding behavior, stomach content, juveniles, salmonids, Campbell R.)
- 776 (fishways, biological data, Pacific salmon, steelhead trout, Meziadin R.)
- 780 (fishery surveys, seining, Fraser R.)
- 781 (habitat improvement, limnology, hydrology, salmonids, Fraser R. estuary)
- 782 (catch statistics, food fish, Indians, Pacific salmon)
- 787 (catch statistics, food fish, Indians, Pacific salmon, sturgeons, Fraser R.)
- 793 (fishery surveys, spawning populations, spawning grounds, chum salmon, Nekite R.)
- 794 (fishery surveys, escapement, stock assessment, sockeye salmon, Owikeno L.)
- 795 (fishery surveys, echo sounding, sockeye salmon, Rivers Inlet)
- 796 (fishery surveys, fish counters, escapement, sockeye salmon, Docee R.)
- 802 (migrations, habitat, stream flow, coho salmon, chinook salmon, Kloiya Creek)
- 804 (experimental fishing, gillnets, Pacific salmon, steelhead trout, Skeena R.)
- 805 (experimental fishing, gillnets, Pacific salmon, steelhead trout, Skeena R.)
- TH 122 (environmental impact, invertebrates, Vancouver Harbour)
- DH 77 (oceanographic data, zooplankton, Barkley Sound, Vancouver I.)
- EC 15 (economics, fishery industry)
- 25 (ocean industry, technology)
- 44 (enhancement program, economics, Salmonidae)
- 53 (pricing, simulation model, Pacific salmon)
- 54 (computer model, cost analysis, aquaculture, Pacific salmon, Atlantic salmon)
- Bufo americanus* (see TOAD, AMERICAN)
- BYTHOCARIS SPINIPLEURA* (Crustacea)
- B 221 (new species, morphology, taxonomy, NW Atl.)
- Bythotrephes cederstroemi* (see CLADOCERA)
- C
- Caddisflies (see TRICHOPTERA)
- CALIFORNIA STATE, USA
- J 47(6) : 1140 (dentrification, sediments, Little Lost Man Creek)
- (7) : 1275 (predators, mortality, *Carcinonemertes epialti*, S CA)
- (11) : 2099 (exchange flow, streams, nitrates, Little Lost Man Creek)
- : 2123 (pollution monitoring, chemical pollutants, indicator species, white croaker)
- SP 108 : 207 (environmental effects, recruitment, Pacific hake)
- CALIGOIDA (sea lice) (Copepoda)
- TF 1715 (parasites, biology, *Caligus elongatus*, *Caligus curtus*, *Lepeophtheirus salmonis*, Atlantic salmon, Bay of Fundy, NW Atl.)

Caligus curtus (see CALIGOIDA)
elongatus (see CALIGOIDA)

Callorhinus ursinus (see SEAL, NORTHERN FUR)

CANADA (see also Provinces; also Territories)

- J 47(1) : 67 (pollution effects, acid rain, models, lakes, E Canada)
 (3) : 644 (freshwater resources, pollution, acid rain)
 (4) : 821 (acidification, fishes, Mollusca, lakes, E Canada)
 (5) : 1011 (predation, algae, green sea urchin, E Canada)
 (6) : 1077 (limnology, phosphorus, lakes)
 TF 1712 (biological poisons, marine algae, conferences)
 1761 (aquaculture, finfish, conferences)
 CH 33 (information services, oceanographic data, computer programs)
 EC 5 (economics, fishery industry, E Canada)
 6 (economics, market research, snow crab)
 7 (economics, market research, northern pink shrimp)
 8 (economics, market research, Atlantic mackerel)
 12 (economics, market research, sea scallop)
 13 (aquaculture, production)
 14 (fishery economics, sport fishing, acidification)
 18 (total allowable catch, mortality, models)
 19 (economics, market research, aquaculture, blue mussel)
 22 (economics, market research, Arctic char)
 28 (market research, fishmeal)
 29 (market research, cured products, Atlantic mackerel, E Canada)
 32 (economics, market research, groundfish)
 35 (economics, sport fishing, industries)
 37 (economics, market research, American lobster)
 41 (economics, market research, groundfish)
 43 (economic analysis, ocean policy)
 45F (fishery economics, marketing, trade, snow crab)
 50 (market research, trade, Atlantic herring)
 51 (market research, cured products, fishery products)
 52 (market research, trade, demersal fisheries, channel catfish)
 59 (market research, capelin)
 60 (market research, bluefin tuna)
 61 (market research, cultured shrimp, natural shrimp, *Pandalus*)
 65 (market research, pricing, trade, demersal fisheries)

Cancer anthonyi (see CRAB, YELLOW ROCK)
magister (see CRAB, DUNGENESS)

CAPELIN (*Mallotus villosus*)

- TF 1580 (population dynamics, spawning, eggs, Conception Bay, Nfld.)
 TS 5512 (biological data, spawning populations, Kamchatka, USSR)
 EC 9 (economics, market research, Nfld.)
 59 (market research, Canada)

CARCINONEMERTES EPIALTI (nemertean worms)

- J 47(7) : 1275 (predators, mortality, yellow rock crab, S CA)

CARP, COMMON (*Cyprinus carpio*)

- TS 5497 (parasites, seasonal variations, *Bothriocephalus opsariichthydis*, USSR)

CATFISH, CHANNEL (*Ictalurus punctatus*)

- J 47(3) : 544 (palatability, aquaculture, pollution)
 (4) : 766 (diseases, drugs, aquaculture)
 EC 52 (market research, trade, USA, Canada)

Catostomus commersoni (see SUCKER, WHITE)

CESTODA (tapeworms)

- TS 5497 (seasonal variations, *Bothriocephalus opsariichthydis*, common carp, USSR)

CETACEA (see also names of species)

- TS 5506 (census, population structure, N Pac.)

Chaceon fenneri (see CRAB, GOLDEN)

quinquedens (see CRAB, RED)

Chaoborus trivittatus (see MIDGE, PHANTOM)

CHAR, ARCTIC (*Salvelinus alpinus*) (Arctic charr)

- TF 1761 : 61 (aquaculture, culture tanks, genetics)
 : 119 (mariculture, aquaculture techniques, osmoregulation)
 MF 2084 (aquaculture, population genetics, bioselection, Fraser R., Labrador)
 DF 769 (catch statistics, commercial fishing, sport fishing, Victoria I., N.W.T.)
 790 (limnology, meteorology, hydrology, Arctic Char Project, Nauyuk L., N.W.T.)
 811 (stock assessment, biological data, migrations, Cambridge Bay, N.W.T.)
 EC 22 (economics, market research, Canada)

Charr, Arctic (see CHAR, ARCTIC)

brook (see TROUT, BROOK)

- CHINA, PEOPLE'S REPUBLIC OF
 SP 108 : 335 (recruitment, environmental effects, models, Korean prawn, Bohai Sea)
- Chionoecetes opilio* (see CRAB, SNOW)
tanneri (see CRAB, TANNER)
- Chlamys islandica* (see SCALLOP, ICELAND)
- CHRYSOPHYCEAE
 J 47(7) : 1339 (pollution monitoring, pH, models, lakes, CT)
- CHUB, CREEK (*Semotilus atromaculatus*)
 J 47(12) : 2307 (predation, periphyton, Ish Creek, TN)
- Cisco (see HERRING, LAKE)
- CISCO, ARCTIC (*Coregonus autumnalis*)
 J 47(11) : 2164 (environmental effects, winds, recruitment, Prudhoe Bay, Beaufort Sea)
- CLADOCERA (see also CRUSTACEA)
 J 47(4) : 731 (environmental effects, distribution, abundance, *Bythotrephes cederstroemi*, *Leptodora kindti*, L. Erie)
 (5) : 977 (prey, *Daphnia*, opossum shrimp, L. Michigan)
 MF 2083 (sampling, zooplankton, Dauphin L., Man.)
- CLAM, ASIAN (*Corbicula fluminea*)
 J 47(5) : 904 (growth, pollution effects, copper)
- CLAM, SOFTSHELL (*Mya arenaria*)
 J 47(9) : 1655 (environmental effects, growth)
- Clupea harengus harengus* (see HERRING, ATLANTIC)
pallasi (see HERRING, PACIFIC)
(Clupea pallasi)
- COD, ARCTIC (*Boreogadus saida*)
 DF 779 (ichthyoplankton surveys, population structure, food consumption, Beaufort Sea)
- COD, ATLANTIC (*Gadus morhua*) (Baltic cod)
 J 46(S1) : 2 (research programs, fishery management, Scotian Shelf, NW Atl.)
 : 103 (distribution, abundance, eggs, larvae, Scotian Shelf, NW Atl.)
 : 113 (age, growth, larvae, Scotian Shelf, NW Atl.)
 : 171 (population dynamics, population structure, Scotian Shelf, NW Atl.)
 47(4) : 693 (parasites, sealworm)
 (6) : 1112 (catching methods, bait, longlining, Norway)
 : 1185 (ovulation, spawning, fecundity)
- (9) : 1678 (catchability, ice zone, Gulf of St. Lawrence)
 (histology, reproductive tract, sexual maturity, NW Atl.)
 ST 110 (histology, reproductive tract, sexual maturity, NW Atl.)
 B 222 : 67 (parasitism, muscles, geographic distribution, sealworm, Nfld., Labrador)
 : 289 (parasites, growth curves, models, sealworm, NW Atl.)
 TF 1761 : 91 (aquaculture, diets, Norway)
 : 137 (aquaculture, diets, fry)
 : 143 (aquaculture, research programs, tagging, Norway)
 : 169 (aquaculture, osmoregulation, salinity tolerance)
 (aquaculture, Nfld.)
 IF 201 (fecundity, roe, oogenesis, Baltic Sea)
 TS 5515 (feeding behavior, juveniles, Newfoundland Shelf, NW Atl.)
 EC 27F (fishery economics, feasibility, aquaculture, Que.)
- Cod, Baltic (see COD, ATLANTIC)
- COD, PACIFIC (*Gadus macrocephalus*)
 J 47(1) : 184 (growth, population structure, models)
 (reproduction, ovaries, histology)
 TF 1723 (feeding behavior, stomach content, B.C.)
 MF 2025 (spawning, seasonality, fishery surveys, NE Pac.)
 2072
- COMPUTER PROGRAMS AND DATA PROCESSING
 J 47(11) : 2092 (population genetics, stock identification, genes, chinook salmon, Fraser R., B.C.)
 SP 108 : 27 (age determination, potential yield, errors, fishes)
 : 37 (stock assessment, parameters, errors)
 TF 1706 (computer programs, orientation behavior)
 1713 (environmental effects, recruitment)
 1740 (phytoplankton, photosynthesis)
 MF 2044 (computer programs, RVAN, research vessels)
 2082 (fishery surveys, cruises, demersal fisheries)
 CH 33 (oceanographic data, Canada)
 TS 5493 (hazardous materials, Finland)
 EC 54 (computer model, cost analysis, aquaculture, Pacific salmon, Atlantic salmon, B.C.)
- CONFERENCES
 SP 108 (recruitment, stock assessment, physical oceanography, N Pac.)
 (biological poisons, marine algae, Canada)
 TF 1712 (toxicity, aquatic environment, World Waters)
 1714 (aquaculture, finfish, Canada, Norway)
 1761

- TS 5502 (pulp wastes, dioxins)
5510 (research programs, salmonids, USSR)
- CONNECTICUT STATE, USA
J 47(7) : 1339 (pollution monitoring, pH, models, Chrysophyceae, lakes)
- Contracaecum osculatum* (see "WHALEWORM")
- COPEPODA (see also CRUSTACEA)
MF 2083 (zooplankton, sampling, Dauphin L., Man.)
- Corbicula fluminea* (see CLAM, ASIAN)
- Coregonus artedii* (see HERRING, LAKE) (cisco)
autumnalis (see CISCO, ARCTIC)
clupeaformis (see WHITEFISH, LAKE)
hoyi (see BLOATER)
- CORRECTIONS
J 47(2) : 455 (to J 46(7) : 1185;
to (8) : 1318;
to (9) : 1566;
to (10) : 1740;
to (11) : 1853; 2023; 2024;
to (12) : 2184;
to J 47(1) : 197)
(8) : 1649 (to J 45(5) : 923;
to J 46(8) : 1451;
to J 47(4) : 689;
to (5) : 1043)
- Crab, Alaska king (see CRAB, RED KING)
- CRAB, DUNGENESS (*Cancer magister*)
SP 108 : 305 (environmental effects, water currents, abundance, megalops, off Vancouver I., B.C.)
- CRAB, GOLDEN (*Chaceon fenneri*) (*Geryon fenneri*)
J 47(11) : 2112 (geographical distribution, population structure, Gulf of Mexico)
- CRAB, RED (*Chaceon quinque-dens*) (*Geryon quinque-dens*)
J 47(11) : 2112 (geographical distribution, population structure, Gulf of Mexico)
- CRAB, RED KING (*Paralithodes camtschatica*)
J 47(7) : 1307 (growth, water temperature, recruitment, E Bering Sea)
(10) : 1944 (activity patterns, feeding behavior, Kodiak Bay, AK)
EC 6 (economics, market research, USA)
- CRAB, SNOW (*Chionoecetes opilio*) (queen crab)
J 47(11) : 2242 (population structure, migrations, breeding, Bonne Bay, Nfld.)
EC 6 (market research, Canada, USA)
39 (fishery economics, marketing, Que.)
45F (fishery economics, marketing, trade, Canada)
- CRAB, TANNER (*Chionoecetes tanneri*)
EC 6 (economics, market research, USA)
- CRAB, YELLOW ROCK (*Cancer anthonyi*)
J 47(7) : 1275 (predators, mortality, *Carcinonemertes epialti*, S CA)
- Crabs (see CRUSTACEA)
- Crassostrea gigas* (see OYSTER, PACIFIC)
- Crayfish, western (see LOBSTER, WESTERN ROCK)
- CROAKER, LONGNECK (*Pseudotolithus typus*)
J 47(1) : 184 (growth, population structure, models)
- CROAKER, WHITE (*Genyonemus lineatus*)
J 47(11) : 2123 (indicator species, pollution monitoring, chemical pollutants, CA)
- CRUISES (see also FISHERIES AND FISHABLE STOCKS)
MF 2029 (MV *Velma C*, CSS *John P. Tully*, exploratory fishing, echo surveys, rockfishes, off Brooks Peninsula, Vancouver I., B.C.)
2040 (J.P. Tully cruise JPT 88A, echo surveys, Pacific herring, Hecate Strait, NE Pac.)
2045 (F/V *Eastward Ho*, data, sampling, rockfishes, NE Pac.)
2046 (M/V *Caledonian*, gillnets, rockfishes, NW Vancouver I., B.C.)
2061 (F/V *Ocean Selector*, sampling, biological data, rockfishes, NE Pac.)
DF 783 (F/V *Eastward Ho*, fishery surveys, demersal species, Hecate Strait, NE Pac.)
784 (CSS *Hudson*, fishery surveys, primary production, Labrador Shelf, Strait of Belle Isle)
TH 121 (CSS *Dawson* cruise 85-024, current meter data, Grand Bank, NW Atl.)
DH 81 (M/V *Terra Nordica*, sea ice, sea ice properties, Labrador)
- CRUSTACEA (see also names of species)
J 47(2) : 395 (vertical migrations, zooplankton, *Daphnia galeata mendotae*, L. George, Ont.)
: 401 (population dynamics, annual variations, *Daphnia rosea*, *Holopedium gibberum*, lakes, B.C.)
(3) : 495 (food, feeding, *Diaptomus minutus*, *Bosmina* spp., *Diaphanosoma* sp., *Holopedium gibberum*, lakes, Ont.)
(5) : 977 (prey, *Daphnia*, opossum shrimp, L. Michigan)
(6) : 1228 (traps, crabs, lobsters)
(10) : 1913 (indicator species, feeding behavior, local movements, Copepoda, North Inlet estuary, SC)
B 221 (morphology, taxonomy, distribution, new species, NW Atl.)

- TF 1666 (zooplankton, dry weight, Experimental Lakes Area, NW Ont.)
- MF 2047 (morphology, taxonomy, identification keys, Eumalacostraca, Decapoda, Euphausiacea, Mysidacea)
- 2048 (morphology, taxonomy, identification keys, Isopoda, S Beaufort Sea)
- 2083 (zooplankton, sampling, Copepoda, Cladocera, Dauphin L., Man.)
- TS 5514 (economic analysis, fishery industry plants, shrimp fisheries, Norway)
- Cyclotella* spp. (see ALGAE)
- Cyprinus carpio* (see CARP, COMMON)
- D
- DAB, LONGHEAD (*Limanda proboscidea*)
- MF 1932 (new records, Arctic)
- Daphnia* (see CLADOCERA)
- galeata mendotae* (see CRUSTACEA)
- rosea* (see CRUSTACEA)
- Decapoda (see CRUSTACEA)
- Decapterus russellii* (see SCAD, RUSSELL'S MACKEREL)
- Delphinapterus leucas* (see WHALE, WHITE) (beluga)
- Diaphanosoma* sp. (see CRUSTACEA)
- Diaptomus minutus* (see CRUSTACEA)
- DICLIDOPHORIDAE (Monogenea)
- TS 5505 (taxonomy, phylogeny)
- Didinium nasutum* (see PROTOZOA)
- DISEASES AND PARASITES
- J 47(4) : 693 (sealworm, brook trout, Atlantic cod, sea raven)
- : 725 (viruses, plankton, Sproat L., Vancouver I., B.C.)
- : 766 (drugs, diseases, aquaculture, channel catfish)
- (12) : 2293 (parasites, experimental infection, sealworm, "whaleworm", rainbow trout)
- : 2380 (helminths, orientation behavior, sockeye salmon, Great Central L., B.C.)
- B 222 : iii (parasites, population biology, interspecific relationships, hosts)
- : 1 (parasites, historical account, sealworm, NW Atl.)
- : 27 (parasites, hatching, water temperature, Nematoda)
- : 41 (parasites, environmental effects, hatching, sealworm)
- : 47 (parasites, larvae, sealworm, invertebrates, Halifax, N.S.)
- : 67 (parasites, muscles, geographical distribution, sealworm, Atlantic cod, Nfld., Labrador)
- : 83 (parasites, hosts, larvae, Nematoda, Sable I., N.S.)
- : 119 (parasites, abundance, sealworm, rainbow smelt, Gulf of St. Lawrence)
- : 129 (parasites, hosts, sealworm, rainbow smelt, Elbe Estuary, FRG)
- : 147 (parasites, seasonal variations, abundance, sealworm, grey seal, Sable I., N.S.)
- : 261 (parasites, life cycle, models, sealworm)
- : 273 (parasites, life cycle, models, sealworm, Scotland)
- : 289 (parasites, growth curves, models, sealworm, Atlantic cod, NW Atl.)
- TF 1703 (diseases, mortality, blue mussel, B.C.)
- 1715 (parasites, biology, *Caligus elongatus*, *Caligus curtus*, *Lepeoptheirus salmonis*, Atlantic salmon, Bay of Fundy, NW Atl.)
- 1734 (parasites, annual variations, seasonal variations, sealworm, rainbow smelt, Gulf of St. Lawrence)
- 1761 : 7 (fish health, aquaculture, water quality, Norway)
- : 19 (vibriosis, vaccination, aquaculture, Atlantic salmon, Norway)
- : 25 (diseases, aquaculture, Atlantic salmon, Maritime Provinces, Nfld.)
- : 31 (disease detection, methodology, aquaculture, salmonids)
- : 85 (parasite control, symbiosis, aquaculture, wrasses, Atlantic salmon)
- TS 5495 (diseases, toxicity tests, shellfish poisoning)
- 5497 (parasites, seasonal variations, *Bothriocephalus opsariichthydis*, common carp, USSR)
- 5499 (helminths, amino acids, lipids, freshwater fishes)
- 5507 (parasites, new genus, new species, *Phocascaris phocae*, harp seal, White Sea)
- DISTRIBUTION AND ABUNDANCE
- J 46(S1) : 55 (eggs, models, haddock, Browns Bank, NW Atl.)
- : 82 (environmental effects, eggs, larvae, haddock, Scotian Shelf, NW Atl.)
- : 93 (dispersion, larvae, haddock, Browns Bank, NW Atl.)
- : 103 (eggs, larvae, haddock, Atlantic cod, Scotian Shelf, NW Atl.)
- : 134 (demersal fishes, Scotian Shelf, NW Atl.)
- 47(1) : 81 (sea ice, environmental effects,

- invertebrates, Barrow Strait, N.W.T.)
- (2) : 244 (census, ringed seal, Barrow Strait, N.W.T.)
- : 357 (biomass, aquatic plants, North America)
- (3) : 520 (reproduction, American lobster, Grand Manan I., NW Atl.)
- (4) : 711 (habitat, benthos, invertebrates)
- : 731 (environmental effects, *Bythotrephes cederstroemi*, *Leptodora kindti*, L. Erie)
- : 805 (echo surveys, aquatic plants, Devils L., OR)
- (5) : 894 (abundance, fishery surveys, models)
- : 928 (biomass, lakes, reservoirs, fishes, Argentina)
- : 977 (abundance, opossum shrimp, L. Michigan)
- : 992 (abundance, harbor seal, NE Pac.)
- : 1004 (sampling, beach seine, models, fishes, Que.)
- (6) : 1071 (habitat, bearded seal, Penny Strait, N.W.T.)
- (8) : 1526 (distribution, hydrography, northern pink shrimp, Gulf of St. Lawrence)
- (9) : 1830 (new records, biological data, long-finned squid, N.S., Nfld.)
- (11) : 2068 (geographical, hydrography, larvae, northern pink shrimp, Gulf of St. Lawrence)
- : 2112 (geographical distribution, golden crab, red crab, Gulf of Mexico)
- : 2147 (intrabiome distribution, seasonal variations, invertebrates, lakes, Ont.)
- (12) : 2285 (spatial distribution, comparative studies, brook trout, white sucker, Que.)
- : 2339 (geographical, temporal, biological poisons, phytoplankton, Strait of Georgia, NE Pac.)
- : 2407 (abundance, environmental effects, coastal upwelling, oil sardine, India)
- SP 108 : 81 (Pacific hake, NE Pac.)
- : 161 (abundance, migrations, environmental effects, juveniles, pink salmon, Kamchatka R., USSR)
- : 305 (environmental effects, megalops, Dungeness crab, off Vancouver I., B.C.)
- : 341 (distribution records, stock assessment, sockeye salmon, Ozernaya R., Kamchatka, USSR)
- 109 (lingcod, NE Pac.)
- B 221 (decapod Crustacea, NW Atl.)
- 222 : 67 (parasites, muscles, sealworm, Atlantic cod, Nfld., Labrador)
- : 119 (abundance, parasites, sealworm, rainbow smelt, Gulf of St. Lawrence)
- : 147 (abundance, parasites, seasonal variations, sealworm, grey seal, Sable I., N.S.)
- : 199 (distribution, seasonal variations, grey seal, NW Atl.)
- TF 1720 (Plecoptera, Trichoptera, St. Croix R., N.B., Gold R., Medway R., N.S.)
- 1748F (Iceland scallop, Gulf of St. Lawrence)
- 1757F (seasonal variations, historical account, habitat, white whale, St. Lawrence R. estuary, Saguenay fjord)
- MF 2019(3) (geographical distribution, spawning grounds, Pacific herring, Upper Central Coast, B.C.)
- (4) (geographical distribution, spawning grounds, Pacific herring, Lower Central Coast, Johnstone Strait, B.C.)
- 2066 (abundance, chinook salmon, Harrison R., B.C.)
- DF 764 (catch statistics, Atlantic salmon, juveniles, Stewiacke R., St. Mary's R., N.S.)
- 771 (Pacific salmon, Lower Fraser R., B.C.)
- 777 (sampling, population structure, Pacific herring, NE Pac.)
- 780 (fishery surveys, seining, fishes, Fraser R., B.C.)
- 791 (catch statistics, distribution records, Atlantic salmon, Mactaquac Area, Saint John R., N.B.)
- 803 (vertical distribution, zooplankton, ichthyoplankton, Scotian Shelf, NW Atl.)
- TS 5504 (Atlantic walrus, Arctic)
- 5506 (marine mammals, N Pac.)
- DNA (Deoxyribonucleic acid) (see GENETICS)
- DOGFISH, SPINY (*Squalus acanthias*)
- DF 778 (migrations, tagging, NE Pac.)
- DOLLY VARDEN (*Salvelinus malma*)
- J 47(12) : 2297 (habitat selection, competition, controlled conditions, coho salmon, Prince of Wales I., AK)
- E
- ECONOMICS AND SOCIOLOGY
- J 47(10) : 2049 (economic analysis, models, insecticides, blackfly)
- IF 202F (fishery economics, seining, Atlantic mackerel, S Gulf of St. Lawrence)
- TS 5514 (economic analysis, fishery industry plants, shrimp fisheries, Norway)
- EC 1F (pollution effects, acidification, sport fishing, fishery economics, Que.)
- 2 (fishery industry, income, Nfld.)
- 3 (fishery economics, pricing, ports, Maritime Provinces, Nfld., Labrador)

- 4 (fishery economics, costs, fishing operations, Nfld.)
 5 (fishery industry, E Canada)
 6 (market research, snow crab, Tanner crab, red king crab, Canada, USA)
 7 (market research, northern pink shrimp, Canada)
 8 (market research, Atlantic mackerel, Canada)
 9 (market research, capelin, Nfld.)
 10F (market research, trade, American lobster, Que.)
 12 (market research, scallops, Canada, USA, Japan)
 13 (aquaculture, production, Canada)
 14 (sport fishing, acidification, fishery economics, E Canada)
 15 (fishery industry, B.C.)
 16 (shared stocks, Atlantic herring, haddock, Gulf of Maine, Georges Bank, NW Atl.)
 18 (total allowable catch, mortality, models)
 19 (market research, aquaculture, blue mussel, Canada)
 20F (market research, resource availability, demersal fisheries, Que.)
 21 (market research, Salmonidae, Japan)
 22 (market research, Arctic char, Canada)
 23 (market research, consumers, Salmonidae, USA)
 24 (fisheries statistics, catch/effort, economic analysis)
 25 (ocean industry, technology, B.C.)
 26 (fishery economics, fishing vessels, Que.)
 27F (fishery economics, aquaculture, feasibility, Atlantic cod, Que.)
 28 (market research, fishmeal, Canada)
 29 (market research, cured products, Atlantic mackerel, E Canada)
 30 (fishery economics, potential resources, bluefin tuna, Nfld.)
 31 (purse seining, Atlantic herring, NW Atl.)
 32 (market research, groundfish, Canada)
 34 (fishing vessels, Scotia-Fundy Region, NW Atl.)
 35 (sport fishing, industries, Canada)
 36 (costs, fishing operations, Nfld.)
 37 (market research, American lobster, Canada)
 39 (fishery economics, marketing, snow crab, Que.)
 40F (fishery economics, landing statistics, trade, American lobster, Que.)
 41 (market research, groundfish, Canada)
 43 (economic analysis, ocean policy, Canada)
 44 (enhancement program, Salmonidae, B.C.)
 45F (fishery economics, marketing, trade, snow crab, Canada)
 48 (fishery industry, statistics, sociological aspects, Scotia-Fundy Region, NW Atl.)
 50 (market research, trade, Atlantic herring, Canada)
 51 (market research, cured products, fishery products, Canada)
 52 (market research, trade, demersal fisheries, channel catfish, Canada, USA)
 53 (pricing, simulation model, Pacific salmon, B.C.)
 54 (cost analysis, computer model, aquaculture, Pacific salmon, Atlantic salmon, B.C.)
 55 (market research, distribution, fishery products, Pacific salmon, Ont.)
 56 (market research, fishery products, Pacific salmon, Atlantic salmon, Japan)
 57 (fishing industry, Cape Breton I., N.S.)
 59 (market research, capelin, Canada)
 60 (market research, bluefin tuna, Canada)
 61 (market research, cultured shrimp, natural shrimp, *Pandalus*, Canada)
 65 (market research, pricing, trade, demersal fisheries, Canada)
 72 (fishing vessel statistics, fishing effort, Scotia-Fundy Region, NW Atl.)
 75 (fishery management, quota regulations, evaluation, New Zealand)
- EELPOUT, ARCHER (*Lycodes sagittarius*)
 MF 1932 (new records, Arctic)
- EGGS AND LARVAE (see also names of species)
 J 46(S1) : 55 (eggs, vertical distribution, models, haddock, Browns Bank, NW Atl.)
 : 68 (eggs, environmental effects, haddock, Georges Bank, Browns Bank, NW Atl.)
 : 82 (vertical distribution, environmental effects, haddock, Scotian Shelf, NW Atl.)
 : 93 (larvae, dispersion, haddock, Browns Bank, NW Atl.)
 : 103 (distribution, abundance, haddock, Atlantic cod, Scotian Shelf, NW Atl.)
 : 113 (larvae, age, growth, Atlantic cod, Scotian Shelf, NW Atl.)
 : 125 (larvae, body conditions, environmental effects, haddock, Scotian Shelf, NW Atl.)
 SP 108 : 169 (eggs, buoyancy, walleye pollock, Shelikof Shelf, Gulf of Alaska)
 : 239 (larvae, environmental effects, water currents, walleye pollock, Shelikof Strait, Gulf of Alaska)
 : 297 (environmental effects, water

- currents, chub mackerel, Kuroshio Current, Japan)
- TF 1580 (population dynamics, spawning, eggs, larvae, capelin, Conception Bay, Nfld.)
- 1729 (environmental impact, suspended matter, lingcod, Pacific herring, surf smelt, NE Pac.)
- MF 2037 (fish eggs, predation, Pacific herring, Barkley Sound, Vancouver I., B.C.)
- 2056 (eggs, stock assessment, models, Pacific herring, NE Pac.)
- ELIMIA, CLUB (*Elimia clavaeformis*)
- J 47(12) : 2307 (predation, periphyton, Ish Creek, TN)
- Elimia clavaeformis* (see ELIMIA, CLUB)
- Engraulis capensis* (see ANCHOVY, SOUTH AFRICAN)
- japonica* (see ANCHOVY, JAPANESE)
- ENVIRONMENTAL EFFECTS
- J 46(S1) : 4 (seasonal variations, oceanography, models, Cape Sable, NW Atl.)
- : 44 (oceanography, plankton, Scotian Shelf, NW Atl.)
- : 68 (spawning, eggs, haddock, Georges Bank, Brown Banks, NW Atl.)
- : 82 (vertical distribution, eggs, larvae, haddock, Scotian Shelf, NW Atl.)
- : 125 (body conditions, larvae, haddock, Scotian Shelf, NW Atl.)
- 47(1) : 81 (sea ice, distribution, invertebrates, Barrow Strait, N.W.T.)
- : 100 (salinity, limnology, plankton, Great Salt L., UT)
- (2) : 357 (biomass, aquatic plants, lakes, North America)
- (3) : 516 (fishery management, methodology, techniques)
- (4) : 701 (reproduction, Atlantic salmon)
- : 731 (water temperature, distribution, abundance, *Bythotrephes cederstroemi*, *Leptodora kindtii*, L. Erie)
- : 772 (acidification, food, feeding, plankton, Little Rock L., WI)
- : 821 (acidification, fishes, Mollusca, lakes, E Canada)
- : 831 (water temperature, metabolism, carcinogens, toadfish)
- (5) : 888 (hydrogen peroxide, biodegradation, fresh water)
- : 960 (water temperature, growth, roach, Tjeukemeer, Netherlands)
- : 1047 (morphometry, phytoplankton, lakes, Que.)
- (6) : 1065 (climatic warming, habitat, brook trout, North America)
- (7) : 1307 (temperature effects, water temperature, growth, red king crab, E Bering Sea)
- : 1356 (oceanic eddies, retention, ichthyoplankton, Hecate Strait, NE Pac.)
- : 1427 (water temperature, variations, Long Point Bay, L. Erie)
- : 1434 (winds, water quality, plankton, Long Point Bay, L. Erie)
- (8) : 1513 (water chemistry, thyroid, juveniles, chinook salmon)
- (9) : 1655 (water currents, sediments, growth, softshell clam)
- : 1710 (water circulation, distribution, demersal fisheries, shrimps, E Arctic)
- : 1773 (streams, ammocetes, sea lamprey, Great Lakes, North America)
- : 1796 (vertical migrations, juveniles, sockeye salmon, lakes, B.C.)
- (10) : 1846 (physical oceanography, commercial fishing, fishing vessels, Pacific salmon, Vancouver I., B.C.)
- : 1937 (alkalinity, population structure, zooplankton, NE USA)
- : 1970 (ecosystem disturbance, benthos, L. Erie)
- : 1996 (ecosystem disturbance, ecological succession, benthos, L. Erie)
- (11) : 2137 (physicochemical properties, fishes, lakes, FL)
- : 2164 (winds, recruitment, Arctic cisco, Prudhoe Bay, Beaufort Sea)
- : 2234 (water temperature, toxicity, arsenates, rainbow trout)
- (12) : 2307 (light effects, production, periphyton, controlled conditions)
- : 2390 (tidal cycles, spawning, Pacific herring, NE Pac.)
- : 2407 (coastal upwelling, abundance, oil sardine, India)
- SP 108 (physical oceanography, recruitment, stock assessment, N Pac.)
- : 7 (environmental conditions, catch statistics, analysis, Pacific salmon, SE AK)
- : 51 (recruitment, models, Pacific hake, N Pac.)
- : 153 (recruitment, marine fishes)
- : 161 (hydrology, migrations, juveniles, pink salmon, Kamchatka R., USSR)
- : 169 (buoyancy, eggs, walleye pollock, Shelikof Strait, Gulf of Alaska)
- : 181 (atmospheric circulation, population number, fishes, N Pac.)
- : 195 (migrations, feeding, spawning, pomfret, N Pac.)
- : 207 (recruitment, Pacific hake, off CA)
- : 221 (recruitment, Pacific halibut, Gulf of Alaska)
- : 239 (water currents, larvae, walleye pollock, Shelikof Strait, Gulf of Alaska)
- : 247 (ocean-atmosphere system,

- annual variations, models, NE Pac.)
 : 255 (food webs, transport processes, biomass)
 : 265 (water currents, fishes, off Vancouver I., B.C.)
 : 297 (water currents, eggs, larvae, chub mackerel, Kuroshio Current, Japan)
 : 305 (water currents, abundance, megalops, Dungeness crab, off Vancouver I., B.C.)
 : 327 (water temperature, recruitment, rock sole, N Hecate Strait, B.C.)
 : 335 (recruitment, models, Korean prawn, Bohai Sea, China)
 : 353 (water temperature, solar radiation, population number, walleye pollock, E Bering Sea)
 B 222 : 27 (water temperature, hatching, eggs, Nematoda)
 : 41 (water temperature, salinity, hatching, sealworm)
 223 (forest industry, Pacific salmon, Carnation Creek, B.C.)
 TF 1652 (carbon dioxide, air pollution, fisheries, NW Atl.)
 1713 (computer programs, recruitment)
 1725 (salinity tolerance, storage, sperm, Pacific halibut, sablefish)
 1751 (habitat, research programs, Atlantic salmon, Catamaran Brook, Miramichi R., N.B.)
 1752 (degradation, indicator species, fishes, St. Lawrence estuary)
 1754F (man-induced effects, Orleans I., Gulf of St. Lawrence)
 1761 : 7 (water quality, fish health, aquaculture, Norway)
 : 41 (genetics, natural populations, aquaculture, salmonids, Norway)
 : 99 (salinity, photoperiod, aquaculture, juveniles, Atlantic salmon)
 : 133 (water temperature, growth, aquaculture, chinook salmon)
 MF 2055F (chemical pollution, St. Lawrence R.)
 TS 5502 (pulp wastes, dioxins, conferences)
- ENVIRONMENTAL IMPACT
 J 47(6) : 1103 (forest industry, debris flow, invertebrates, rivers, OR)
 (7) : 1434 (power plants, water quality, plankton, Long Point Bay, L. Erie)
 B 223 (forest industry, ecosystems, Carnation Creek, B.C.)
 TF 1724 (aquaculture, effluents, salmonids, Bay of Fundy, NW Atl.)
 1729 (suspended matter, eggs, larvae, lingcod, Pacific herring, surf smelt, NE Pac.)
 1751 (habitat, research programs, Atlantic salmon, Catamaran Brook, Miramichi R., N.B.)
 1754F (man-induced effects, Orleans I., Gulf of St. Lawrence)
- TH 122 (benthos, invertebrates, Vancouver Harbour, B.C.)
 128 (environmental monitoring, nuclear power plants, Point Lepreau, Bay of Fundy, NW Atl.)
 CH 37 (wave current interactions, offshore structures, NW Atl.)
- ERIE, LAKE, NORTH AMERICA
 J 47(4) : 731 (environmental effects, distribution, abundance, *Bythotrephes cederstroemi*, *Leptodora kindtii*)
 (7) : 1427 (water temperature, variations, Long Point Bay)
 : 1434 (environmental effects, environmental impact, water quality, plankton, Long Point Bay)
 (9) : 1779 (competition, feeding behavior, growth, white perch, yellow perch)
 (10) : 1970 (ecosystem disturbance, ecological succession, benthos)
 : 1996 (ecosystem disturbance, ecological succession, benthos)
- Erignathus barbatus* (see SEAL, BEARDED)
Esox masquinongy (see MUSKELLUNGE)
Eumalacostraca (see CRUSTACEA)
Euphausiacea (see CRUSTACEA)
- EUROPE
 J 47(6) : 1093 (biogeography, DNA, zander)
Euthynnus pelamis (see TUNA, SKIPJACK)
- EXPERIMENTAL LAKES AREA, NORTHWESTERN ONTARIO
 J 47(2) : 236 (acidification, survival, embryos, lake trout)
 TF 1666 (dry weight, Crustacea, Rotifera)
- F
- FINLAND
 J 47(10) : 1888 (pollution monitoring, mercury, fishes, L. Hakojärvi)
 TS 5493 (data acquisition, hazardous materials)
- FISH HANDLING
 J 47(8) : 1495 (roes, ultrastructure, membranes, Pacific herring, NE Pac.)
 : 1505 (roes, vitellogenesis, histology, Pacific herring, NE Pac.)
 MF 2030 (biological sampling, fixation, Pacific herring, B.C.)
 TS 5498 (cured products, aromatic hydrocarbons, FRG)
 5513 (robots, shipboard equipment, freezing storage)
 5514 (economic analysis, fish

- 5515 processing, shrimp fisheries, Norway)
 (roes, oogenesis, Atlantic cod, Baltic Sea)
- EC 3 (fishery economics, pricing, ports, Maritime Provinces, Nfld., Labrador)
- 10 (market research, trade, American lobster, Que.)
- 28 (market research, fishmeal)
- 29 (market research, cured products, Atlantic mackerel, E Canada)
- 39 (fishery economics, marketing, snow crab, Que.)
- 51 (market research, cured products, Canada)
- 55 (market research, distribution, Pacific salmon, Ont.)
- 56 (market research, Pacific salmon, Atlantic salmon, Japan)
- 1307 (growth, water temperature, recruitment, red king crab, E Bering Sea)
- 1330 (population density, mortality, juveniles, western rock lobster, W Australia)
- 1356 (environmental effects, oceanic eddies, retention, ichthyoplankton, Hecate Strait, NE Pac.)
- (8) 1484 (stock identification, subpopulations, lake whitefish, L. Winnipeg, Man.)
- 1495 (roes, ultrastructure, membranes, Pacific herring, NE Pac.)
- 1505 (vitellogenesis, histology, roes, Pacific herring, NE Pac.)
- 1526 (distribution, growth, hydrography, northern pink shrimp, Gulf of St. Lawrence)
- 1534 (antifreeze, blood, migrations, Atlantic herring, Gulf of St. Lawrence)
- (9) 1678 (catchability, ice zone, Atlantic cod, Gulf of St. Lawrence)
- 1710 (stock assessment, distribution, environmental effects, demersal fisheries, shrimp, E Arctic)
- 1788 (fishery management, reproduction, models)
- (10) 1846 (commercial fishing, fishing vessels, catch statistics, Pacific salmon, Vancouver I., B.C.)
- 1875 (fishery management, models, sampling, fish eggs, larvae)
- 1888 (pollution monitoring, mercury, fishes, L. Hakojarvi, Finland)
- 1898 (population dynamics, food availability, hydrography, larvae, Atlantic herring, St. Lawrence estuary)
- 1920 (vertical migrations, echo surveys, air bubbles, Pacific herring, Dabob Bay, Puget Sound, WA, SE AK)
- 1929 (correlation analysis, trophic state, primary production, freshwater fishes)
- 2016 (threshold fishery management, exploitation, models)
- (11) 2068 (geographical distribution, hydrography, larvae, northern pink shrimp, Gulf of St. Lawrence)
- 2085 (fishing vessels, trawlers, capacity utilization, OR)
- 2195 (commercial fishing, population structure, summer, Pacific hake, Vancouver I., B.C.)
- 2235 (stock identification, approximation, models, chinook salmon)
- 2242 (population structure, migrations, breeding, snow crab, Bonne Bay, Nfld.)
- FISHERIES AND FISHABLE STOCKS
- J 46(S1) : 2 (fishery management, research programs, Atlantic cod, haddock, Scotian Shelf, NW Atl.)
- : 134 (distribution, abundance, demersal fishes, Scotian Shelf, NW Atl.)
- 47(1) : 2 (fishery management, research, statistical analysis)
- : 145 (fishery management, harvesting, models, sockeye salmon, Fraser R., B.C.)
- : 184 (growth, population structure, models, Russell's mackerel scad, Pacific cod, longneck croaker)
- (2) : 301 (growth, age composition, models, southern bluefin tuna)
- : 385 (catchability, density dependence, haddock, Georges Bank, NW Atl.)
- (3) : 460 (models, gillnets, Atlantic herring, Notre Dame Bay, Nfld.)
- : 516 (stock assessment, environmental effects, methodology, techniques)
- : 595 (fishery management, recruitment, models)
- : 620 (fishery management, stock identification, genetics)
- : 644 (pollution, acid rain, Canada)
- (4) : 696 (gear selectivity, snappers, Marianas Is., SW Pac.)
- (5) : 894 (fishery surveys, trawls, models)
- : 968 (stock identification, genetics, models, Pacific salmon)
- (6) : 1112 (catching methods, bait, longlining, Atlantic cod, Norway)
- : 1116 (catch/effort, fishermen, fishing vessels, Pacific salmon, NE Pac.)
- : 1177 (fishery statistics, catch/effort, American lobster, Lower Argyle, SW N.S.)
- : 1228 (traps, crabs, lobsters)
- (7) : 1282 (stock assessment, echo surveys, random processes, South African anchovy)

- (12) : 2315 (models, catch-age analysis, Pacific halibut)
- SP 31R : 2364 (models, statistical analysis, age composition, fishes)
- 108 : (inspection regulations, manual) (recruitment, stock assessment, physical oceanography, N Pac.)
- : 1 (biology, oceanography, research programs, World Oceans)
- : 7 (catch statistics, environmental conditions, analysis, Pacific salmon, SE AK)
- : 13 (fishery management, stock assessment, demersal fisheries, off B.C.)
- : 27 (age determination, potential yield, errors)
- : 37 (stock assessment, parameters, errors)
- : 43 (acoustic surveys, errors, stock assessment, Japanese sardine, Hokkaido, Japan)
- : 51 (recruitment, environmental effects, models, Pacific hake, N Pac.)
- : 57 (catch statistics, age composition, analysis, walleye pollock, Gulf of Alaska)
- : 67 (catch statistics, environmental conditions, analysis, Pacific salmon, SE AK)
- : 81 (stock assessment, population structure, Pacific hake, NE Pac.)
- : 87 (stock assessment, errors, fishes, models)
- : 101 (stock assessment, statistical errors, fishes, models)
- : 121 (stock assessment, errors, fishes, models, S China Sea)
- : 127 (catch statistics, age composition, models, Pacific halibut, Gulf of Alaska)
- : 341 (stock assessment, distribution records, sockeye salmon, Ozernaya R., Kamchatka, USSR)
- : 359 (environmental effects, oceanography, biological production, fishes, NE Bering Sea)
- 109 : (life history, fishery management, lingcod, NE Pac.)
- TF 1563 : (commercial fisheries, stock identification, scales, Atlantic salmon, Northumberland Strait, N.S.)
- 1628 : (age determination, scales, fresh water, chinook salmon, B.C.)
- 1652 : (environmental effects, carbon dioxide, NW Atl.)
- 1660 : (catch statistics, index fishermen, Atlantic herring, Gulf of St. Lawrence)
- 1668 : (fishery statistics, rainbow smelt, Gulf of St. Lawrence)
- 1690 : (catch statistics, commercial fishing, historical account, Pacific salmon, B.C.)
- 1691 : (mesh regulations, trawl nets, demersal fishes, Scotia-Fundy Region, NW Atl.)
- 1703 : (diseases, mortality, blue mussel, B.C.)
- 1719 : (fishery surveys, population structure, Pacific salmon, Hecate Strait, NE Pac.)
- 1721 : (fishery surveys, bait, sport fishing, Pacific herring, Johnstone Strait, Strait of Georgia, NE Pac.)
- 1728 : (catch statistics, catch/effort, fishery management, demersal species, NE Pac.)
- 1732 : (stock assessment, demersal fisheries, NE Pac.)
- 1733 : (fishery management, escapement, approximation, Pacific salmon)
- 1737 : (migrations, tagging, Atlantic salmon, NW Atl.)
- 1743 : (recruitment, fishery resources, N Atl.)
- 1744F : (fishery management, information services, habitat, Que.)
- 1747 : (harvest statistics, population structure, narwhal, Admiralty Inlet, Baffin I., N.W.T.)
- 1748F : (distribution, biological data, Iceland scallop, Gulf of St. Lawrence)
- 1751 : (habitat, environmental effects, research programs, Atlantic salmon, Catamaran Brook, Miramichi R., N.B.)
- 1752 : (fishery surveys, indicator species, degradation, St. Lawrence estuary)
- MF 1582 : (stock assessment, sidestripe shrimp, Queen Charlotte Is., B.C.)
- 2019(2) : (spawning grounds, geographical distribution, Pacific herring, N B.C.)
- 2021 : (fishery surveys, stock assessment, juveniles, salmonids, SE Clayoquot Sound, Vancouver I., B.C.)
- 2029 : (exploratory fishing, echo surveys, rockfishes, off Brooks Peninsula, Vancouver I., B.C.)
- 2031 : (scallop fisheries, aquaculture, bibliographies, World Waters)
- 2040 : (stock assessment, echo surveys, Pacific herring, Hecate Strait, NE Pac.)
- 2043 : (stock assessment, lingcod, Gulf Islands region, Strait of Georgia, NE Pac.)
- 2044 : (computer programs, RVAN, research vessels)
- 2045 : (cruises, sampling, data, rockfishes, NE Pac.)
- 2046 : (cruises, gillnets, rockfishes, NW Vancouver I., B.C.)
- 2049 : (stock assessment, potential yield, Pacific herring, NE Pac.)
- 2052 : (catch statistics, harvesting, escapement, coho salmon, Fraser R.,

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|--------|---|-----------------|---|
| 2053 | B.C.)
(stock assessment, tagging, escapement, coho salmon, Salmon R., B.C.) | IF 202F | (fishery economics, seining, Atlantic mackerel, S Gulf of St. Lawrence) |
| 2056 | (stock assessment, models, egg deposition, giant kelp, Pacific herring, NE Pac.) | TS 5501
5504 | (Yezo scallop, Japan)
(census, resource conservation, Atlantic walrus, Arctic) |
| 2061 | (cruises, sampling, biological data, rockfishes, NE Pac.) | 5512 | (biological data, spawning populations, capelin, Kamchatka, USSR) |
| 2063 | (resource management, fishery resources, marine mammals, N.W.T., Yukon) | 5513 | (fish handling, robots, freezing storage) |
| 2064 | (stock assessment, fishery resources, annual reports, NE Pac.) | 5514 | (economic analysis, fishery industry plants, shrimp fisheries, Norway) |
| 2065 | (stock assessment, tagging, escapement, chinook salmon, Campbell R., Quinsam R., B.C.) | 5518 | (feeding, behavioral responses, chemical stimuli, aquatic animals) |
| 2072 | (fishery surveys, spawning, seasonality, Pacific cod, NE Pac.) | EC 4 | (costs, fishing operations, Nfld.) |
| 2075 | (stock assessment, fishery data, Atlantic salmon, North R., N.S.) | 5 | (fishery industry, E Canada) |
| 2077 | (biological data, escapement, exploitation, Atlantic salmon, Liscomb R., N.S.) | 6 | (market research, economics, crab, Canada, USA) |
| 2082 | (cruises, fishery surveys, standards, demersal fisheries) | 7 | (market research, economics, northern pink shrimp, Canada) |
| DF 765 | (fishery surveys, historical account, fishways, Pacific salmon, steelhead trout, Meziadin R., B.C.) | 9 | (market research, economics, capelin, Nfld.) |
| 768 | (catch statistics, trawling, Fraser R., B.C.) | 12 | (market research, scallops, Canada, USA, Japan) |
| 769 | (catch statistics, commercial fishing, Arctic char, Victoria I., N.W.T.) | 15 | (economics, fishery industry, B.C.) |
| 780 | (fishery surveys, seining, fishes, Fraser R., B.C.) | 16 | (economics, shared stocks, Atlantic herring, haddock, Gulf of Maine, Georges Bank, NW Atl.) |
| 782 | (catch statistics, food fish, Indians, Pacific salmon, B.C.) | 18 | (total allowable catch, mortality, models, Canada) |
| 783 | (cruises, fishery surveys, demersal species, Hecate Strait, NE Pac.) | 20F | (market research, resource availability, demersal fisheries, Que.) |
| 787 | (catch statistics, food fish, Indians, Pacific salmon, sturgeons, Fraser R., B.C.) | 22 | (market research, economics, Arctic char, Canada) |
| 793 | (fishery surveys, spawning populations, spawning grounds, chum salmon, Nekite R., B.C.) | 24 | (economic analysis, fisheries statistics, catch/effort) |
| 794 | (fishery surveys, escapement, stock assessment, sockeye salmon, Owikeno L., B.C.) | 30 | (fishery economics, potential resources, bluefin tuna, Nfld.) |
| 795 | (fishery surveys, echo sounding, sockeye salmon, Rivers Inlet, B.C.) | 31 | (purse seining, economics, Atlantic herring, NW Atl.) |
| 796 | (fishery surveys, fish counters, escapement, sockeye salmon, Docee R., B.C.) | 32 | (market research, economics, groundfish, Canada) |
| 800 | (harvest, stock assessment, population structure, white whale, Mackenzie R. estuary, N.W.T.) | 36 | (costs, fishing operations, Nfld.) |
| 804 | (experimental fishing, gillnets, Pacific salmon, steelhead trout, Skeena R., B.C.) | 37 | (market research, economics, Canada) |
| 805 | (experimental fishing, gillnets, Pacific salmon, steelhead trout, Skeena R., B.C.) | 40F | (fishery economics, landing statistics, trade, American lobster, Que.) |
| 811 | (stock assessment, biological data, migrations, Arctic char, Cambridge Bay, N.W.T.) | 41 | (market research, economics, groundfish, Canada) |
| | | 48 | (fishery industry, fishery statistics, sociological aspects, Scotia-Fundy Region, NW Atl.) |
| | | 50 | (market research, trade, Atlantic herring, Canada) |
| | | 52 | (market research, trade, demersal fisheries, Canada, USA) |
| | | 57 | (fishing industry, economics, sociology, Cape Breton I., N.S.) |
| | | 65 | (market research, pricing, trade, demersal fisheries, Canada) |
| | | 72 | (fishing vessel statistics, fishing effort, Scotia-Fundy) |

- 75 Region, NW Atl.)
(fishery management, quota regulations, New Zealand)
- FISHES
- J 47(1) : 24 (growth, maturity, survival, models)
: 166 (fish removal, algae, biomanipulation, L. Haugatjen, Norway)
(2) : 251 (interspecific relationships, predator control, models, sea lamprey, L. Superior, North America)
(4) : 821 (acidification, lakes, E Canada)
(5) : 928 (biomass, lakes, reservoirs, Argentina)
: 1004 (sampling, beach seines, models, lakes, Que.)
(9) : 1710 (stock assessment, distribution, environmental effects, E Arctic)
(10) : 1888 (pollution monitoring, mercury, L. Hakojärvi, Finland)
: 2030 (food chains, bioaccumulation, PCBs, fresh water, Ont.)
(11) : 2137 (check lists, lakes, FL)
: 2219 (growth, length, otoliths)
(12) : 2364 (statistical analysis, age composition, models)
- SP 108 : 27 (age determination, potential yield, errors)
: 153 (population dynamics, recruitment, environmental effects)
: 181 (environmental effects, atmospheric circulation, population number, N Pac.)
: 255 (food webs, transport processes, environmental effects, biomass)
: 265 (environmental effects, water currents, off Vancouver I., B.C.)
: 359 (biological production, commercial fishing, NE Pac.)
- TF 1681 (pollution effects, ocean dumping, World Oceans)
1717 (bibliographies, World Waters)
1727 (acidification, freshwater lakes, N.B.)
1761 (finfish, conferences, Canada, Norway)
MF 1909 (bibliographies, marine fishes, Arctic)
1932 (check lists, marine fishes, new records, Arctic)
DF 768 (catch statistics, trawling, Fraser R., B.C.)
780 (surveys, seining, Fraser R., B.C.)
803 (vertical distribution, ichthyoplankton, Scotian Shelf, NW Atl.)
TS 5499 (helminths, amino acids, lipids, freshwater fishes)
- FLORIDA STATE, USA
J 47(11) : 2137 (check lists, fishes, physicochemical properties, lakes)
- FOOD AND FEEDING
- J 47(1) : 41 (detritus, juveniles, white sucker, MI)
: 49 (detritus, nutritive value, juveniles, white sucker)
: 199 (diurnal variations, rainbow trout, Snake R., ID)
(3) : 495 (zooplankton, lakes, Ont.)
: 554 (metabolism, models, yellow perch)
(4) : 772 (environmental effects, acidification, plankton, Little Rock L., WI)
: 789 (bluegill, invertebrates, L. Opinicon, Ont.)
(5) : 882 (prey selection, yellow perch)
: 915 (aggressiveness, juveniles, brook trout)
: 921 (reproductive strategy, yellow perch)
: 1011 (predation, green sea urchin, algae, E Canada)
(6) : 1157 (pollution effects, insecticides, larvae, fathead minnow)
(7) : 1387 (food availability, pollution effects, insecticides, brook trout, Icewater Creek, Ont.)
(8) : 1518 (diets, vitamin C, bioaccumulation, rainbow trout)
(9) : 1738 (predation, plankton feeders, zooplankton, alewife, L. Michigan)
: 1779 (feeding behavior, competition, white perch, yellow perch, L. Erie)
: 1836 (food webs, grazing, bacterioplankton, L. Michigan)
(10) : 1898 (food availability, population dynamics, hydrography, larvae, Atlantic herring, St. Lawrence estuary)
: 1913 (feeding behavior, local movements, indicator species, Copepoda, spot, North Inlet estuary, SC)
: 1944 (red king crab, Kodiak Bay, AK)
: 2030 (food chains, bioaccumulation, PCBs, freshwater fishes, lake trout, Ont.)
: 2039 (drift feeding, habitat, models, Arctic grayling, rivers, AK)
: 2057 (trophic relationships, food webs, secondary production, Wilson Creek, Bernheim Forest, KY)
(12) : 2285 (feeding behavior, stocking organisms, comparative studies, brook trout, white sucker, Que.)
: 2307 (trophic levels, production, periphyton, Ish Creek, TN)
- SP 108 : 161 (environmental effects, juveniles, pink salmon, Kamchatka R., USSR)
B 222 : 215 (seasonal variations, grey seal, NW Atl.)
: 227 (summer, grey seal, Anticosti I., Gulf of St. Lawrence)

- : 243 (grey seal, Isle of May, Orkney, Scotland)
 TF 1730 (feeding, scats, harbor seal, Strait of Georgia, NE Pac.)
 1731 (habitat improvement, marshes, juveniles, Pacific salmon, Fraser R., B.C.)
 1761 : 77 (feeding experiments, aquaculture, rainbow trout)
 : 91 (diets, aquaculture, Atlantic salmon, Atlantic cod, Atlantic halibut, American plaice, Norway)
 : 137 (diets, fry, aquaculture, Atlantic cod, Atlantic halibut, turbot)
 : 153 (diets, aquaculture, Atlantic halibut, Norway)
 MF 2025 (feeding behavior, stomach content, Pacific cod, B.C.)
 DF 774 (feeding behavior, stomach content, juveniles, salmonids, Campbell R., B.C.)
 779 (food consumption, ichthyoplankton, Beaufort Sea)
 TS 5516 (juveniles, Atlantic cod, Newfoundland Shelf, NW Atl.)
 5518 (behavioral responses, chemical stimuli, aquatic animals)
- Frobisher Bay (see ARCTIC)
 FROG, LEOPARD (*Rana pipiens*)
 J 47(1) : 210 (bioaccumulation, aluminum, toxicity)
 : 217 (aluminum, pH, toxicity)
- Fundy, Bay of (see NORTHWEST ATLANTIC OCEAN)
 Furunculosis (see BACTERIA)
- G
- Gadus macrocephalus* (see COD, PACIFIC)
morhua (see COD, ATLANTIC)
Gaidropsarus argentatus (see ROCKLING, SILVER)
Gambusia affinis (see MOSQUITOFISH)
- GAMMARIDEA
 DF 799 (taxonomy, morphology, Beaufort Sea)
- Gasterosteus aculeatus* (see STICKLEBACK, THREESPINE)
- Genera, new (see NEW GENERA)
- GENETICS
 J 47(3) : 533 (DNA, reproduction, lake herring, Hudson Bay, James Bay)
 : 566 (agonistic behavior, coho salmon)
 : 611 (stock identification, models)
 : 620 (stock identification, fishery management)
 (4) : 719 (aquaculture, rainbow trout)
- (5) : 968 (stock identification, models, Pacific salmon)
 : 984 (stock identification, DNA, taxonomy, *Salvelinus* spp.)
 (6) : 1093 (phylogenetics, biogeography, DNA, sauger, walleye, zander, North America, Europe)
 : 1213 (gametogenesis, polyploids, Pacific oyster)
 (7) : 1292 (growth regulators, hormones, water temperature, rainbow trout)
 (8) : 1484 (stock identification, subpopulations, genomes, lake whitefish, L. Winnipeg, Man.)
 : 1562 (stock identification, DNA, dwarfs, lake herring, Ten Mile L., MN)
 : 1570 (stock identification, mathematical analysis, comparative studies, American shad, striped bass)
 (9) : 1672 (biopolymorphism, enzymes, Atlantic salmon)
 (10) : 2010 (enzyme heterozygosity, fecundity, brook trout, Mykiss L., Algonquin Park, Ont.)
 (11) : 2092 (stock identification, genes, chinook salmon, Fraser R., B.C.)
 : 2123 (methodology, techniques, pollution monitoring, chemical contaminants, white croaker, CA)
 : 2172 (agonistic behavior, salinity tolerance, intraspecific relationships, juveniles, chinook salmon, Nanaimo R., B.C.)
 : 2235 (stock identification, approximation, models, chinook salmon)
 : 2250 (developmental stages, sympatric populations, hybrids, sockeye salmon, kokanee)
- SP 108 : 137 (stock identification, scale reading, sockeye salmon, Ozernaya R., Kamchatka R., USSR)
 TF 1563 (stock identification, scale reading, commercial fisheries, Atlantic salmon, Northumberland Strait, N.S.)
 1761 : 41 (aquaculture, natural populations, salmonids, Norway)
 : 49 (bioselection, aquaculture, Atlantic salmon, St. Andrews, N.B.)
 : 61 (aquaculture, culture tanks, Arctic char)
- MF 2084 (bioselection, aquaculture, Arctic char, Fraser R., Labrador)
 DF 811 (stock identification, biological data, migrations, Arctic char, Cambridge Bay, N.W.T.)
 TS 5511 (polyploids, ovaries, sex hormones, rainbow trout)
- Genyonemus lineatus* (see CROAKER, WHITE)
- GEOMORPHOLOGY
 TF 1726 (stereophotography, ocean floor, Scotian Shelf, NW Atl.)

Georges Bank (see NORTHWEST ATLANTIC OCEAN)

Georgia, Strait of (see NORTHEAST PACIFIC OCEAN)

GEORGIA STATE, USA

- J 47(1) : 92 (debris flow, pulp wastes, Ogeechee R.)

GERMANY, FEDERAL REPUBLIC OF (FRG)

- B 222 : 129 (parasites, hosts, rainbow smelt, sealworm, Elbe Estuary)
TS 5498 (fishery products, cured products, aromatic hydrocarbons)

Geryon fenneri (see CRAB, GOLDEN)

quinquedens (see CRAB, RED)

GRAYLING, ARCTIC (*Thymallus arcticus*)

- J 47(10) : 2039 (drift feeding, habitat, models, rivers, AK)

GREAT LAKES, NORTH AMERICA (see also names of lakes)

- J 47(9) : 1773 (environmental effects, streams, ammocetes, sea lamprey)
TF 1709 (trophic relationships, food webs, primary production, bacteria)
1736 (population dynamics, environmental effects, limnology, sea lamprey)
1739 (spawning grounds, evaluation, lake trout)

Gulf of... (see name of gulf)

Gymnelus hemifasciatus (see UNERAK, BIGEYE)

retrodorsalis (see UNERAK, AURORA)

H

HABITAT

- J 47(1) : 92 (aquatic organisms, pulp wastes, Ogeechee R., GA)
: 128 (fertilization, growth, *Rhizosolenia eriensis*, *Cyclotella* spp., Sproat L., Vancouver I., B.C.)
(2) : 262 (habitat improvement, nutrients, Sproat L., Vancouver I., B.C.)
(4) : 711 (distribution, abundance, benthos, invertebrates)
(5) : 852 (rootwads, coho salmon, steelhead trout, Kloiya Creek, B.C.)
: 862 (habitat improvement, growth, coho salmon, steelhead trout, Keogh R., B.C.)
: 1004 (sampling, beach seine, models, fishes, Que.)
(6) : 1060 (spawning populations, Atlantic herring, Georges Bank, NW Atl.)
: 1065 (environmental effects, climatic warming, brook trout, North America)
: 1071 (distribution, abundance, bearded seal, Penny Strait, N.W.T.)

- (9) : 1664 (habitat selection, models, bioenergetics, bluegill)
: 1684 (wood, debris, rivers, Salmonidae, SE AK)
: 1724 (home range, population density, juveniles, Salmonidae)
(10) : 2039 (drift feeding, models, Arctic grayling, rivers, AK)
(12) : 2297 (habitat selection, competition, controlled conditions, coho salmon, Dolly Varden, Prince of Wales I., AK)
TF 1710 (habitat improvement, spawning grounds, nursery grounds, Atlantic salmon, LaHave R., N.S.)
1731 (habitat improvement, diets, marshes, juveniles, Pacific salmon, Fraser R., B.C.)
1739 (spawning grounds, evaluation, lake trout, Great Lakes, North America)
1744F (information services, fishery management, Que.)
1751 (man-induced effects, environmental effects, research programs, Atlantic salmon, Catamaran Brook, Miramichi R., N.B.)
1754F (habitat improvement, man-induced effects, environmental effects, Orleans I., Gulf of St. Lawrence)
1757F (distribution, seasonal variations, historical account, white whale, St. Lawrence R. estuary, Saguenay fjord)
MF 2057F (habitat improvement, spawning, rainbow smelt, Boyer R., St. Lawrence R. estuary)
2058 (spawning grounds, potential yield, smolts, coho salmon)
2059 (water quality, Atlantic salmon, Sackville R., N.S.)
2071 (habitat improvement, spawning grounds, channels, coho salmon, B.C.)
2073F (spawning grounds, Atlantic sturgeon, Bersimis R., Que.)
DF 781 (habitat improvement, limnology, hydrology, salmonids, Fraser R. estuary, B.C.)
802 (migrations, stream flow, coho salmon, chinook salmon, Kloiya Creek, B.C.)
TS 5508 (resource conservation, marine mammals, World Oceans)
EC 44 (enhancement program, economics, Salmonidae, B.C.)

HADDOCK (*Melanogrammus aeglefinus*)

- J 46(S1) : 2 (research programs, fishery management, Scotian Shelf, NW Atl.)
: 55 (vertical distribution, eggs, models, Browns Bank, NW Atl.)
: 68 (spawning, environmental effects, Georges Bank, Browns Bank, NW Atl.)
: 82 (vertical distribution, environmental effects, eggs, larvae, Scotian Shelf, NW Atl.)
: 93 (dispersion, larvae, Browns Bank,

- NW Atl.)
 : 103 (distribution, abundance, eggs, larvae, Scotian Shelf, NW Atl.)
 : 125 (body conditions, environmental effects, larvae, Scotian Shelf, NW Atl.)
 : 153 (reproduction, Scotian Shelf, NW Atl.)
 : 171 (population dynamics, population structure, Scotian Shelf, NW Atl.)
 (2) : 385 (catchability, density dependence, Georges Bank, NW Atl.)
 EC 16 : (shared stocks, Atlantic herring, Gulf of Maine, Georges Bank, NW Atl.)
- HAKE, PACIFIC (*Merluccius productus*) (Pacific whiting)
 J 47(4) : 672 (somatic growth, models, Strait of Georgia, NE Pac.)
 (11) : 2195 (commercial fishing, population structure, summer, Vancouver I., B.C.)
 SP 108 : 51 (recruitment, environmental effects, models, N Pac.)
 : 81 (stock assessment, population structure, NE Pac.)
 : 207 (environmental effects, recruitment, off CA)
- HALIBUT, ATLANTIC (*Hippoglossus hippoglossus*)
 TF 1761 : 91 (aquaculture, diets, Norway)
 : 137 (aquaculture, diets, fry)
 : 153 (aquaculture, techniques, evaluation, Norway)
 : 161 (aquaculture, larvae, growth)
- HALIBUT, PACIFIC (*Hippoglossus stenolepis*)
 J 47(2) : 274 (age, body size, models, growth)
 (12) : 2315 (models, catch-age analysis, migrations)
 SP 108 : 127 (catch statistics, age composition, models, Gulf of Alaska)
 : 221 (environmental effects, recruitment, Gulf of Alaska)
 TF 1725 : (aquaculture, storage, salinity tolerance, sperm)
- Halichoerus grypus* (see SEAL, GREY)
- HAWAII STATE, USA
 J 47(1) : 180 (respiration, ponds, shrimp aquaculture, *Penaeus*, Oahu)
- Hecate Strait (see NORTHEAST PACIFIC OCEAN)
- Hemitripterus americanus* (see SEA RAVEN)
- HERRING, ATLANTIC (*Clupea harengus harengus*)
 J 47(3) : 460 (catch statistics, gillnets, models, Notre Dame Bay, Nfld.)
 (6) : 1060 (habitat, spawning populations, Georges Bank, NW Atl.)
 (8) : 1534 (antifreeze, blood, migrations, Gulf of St. Lawrence)
- (10) : 1898 (population dynamics, food availability, hydrography, larvae, St. Lawrence estuary)
 TF 1655 : (sexual maturity, manuals)
 1660 : (catch statistics, index fishermen, Gulf of St. Lawrence)
 EC 16 : (shared stocks, haddock, Gulf of Maine, Georges Bank, NW Atl.)
 31 : (purse seining, NW Atl.)
 50 : (market research, trade, Canada)
- HERRING, BLUEBACK (*Alosa aestivalis*)
 TF 1705 : (production, juveniles, Giant L., N.S.)
- HERRING, LAKE (*Coregonus artedii*) (cisco)
 J 47(2) : 318 (migrations, energy dissipation, reproduction, James Bay, Canada)
 : 335 (migrations, energy dissipation, reproductive patterns, James Bay, Canada)
 (3) : 533 (reproduction, genetics, DNA, Hudson Bay, James Bay, Canada)
 (8) : 1562 (stock identification, dwarfs, DNA, Ten Mile L., MN)
- HERRING, PACIFIC (*Clupea harengus pallasi*) (*Clupea pallasi*)
 J 47(3) : 505 (predation, competition, zooplankton, NE Pac.)
 (8) : 1495 (ultrastructure, ovaries, membranes, roes, NE Pac.)
 : 1505 (vitellogenesis, histology, ovaries, NE Pac.)
 (10) : 1920 (vertical migrations, echo surveys, air bubbles, Dabob Bay, Puget Sound, WA, SE AK)
 (12) : 2375 (prediction, sexual maturity, females, methodology)
 : 2390 (spawning, environmental effects, tidal cycles, NE Pac.)
 TF 1721 : (fishery surveys, bait, sport fishing, Johnstone Strait, Strait of Georgia, NE Pac.)
 1729 : (environmental impact, suspended matter, eggs, larvae, NE Pac.)
 MF 2019(2) : (spawning grounds, geographical distribution, N B.C.)
 (3) : (spawning grounds, geographical distribution, Upper Central Coast, B.C.)
 (4) : (spawning grounds, geographical distribution, Lower Central Coast, Johnstone Strait, B.C.)
 2030 : (biological sampling, fixation, B.C.)
 2037 : (eggs, predation, Barkley Sound, Vancouver I., B.C.)
 2040 : (cruises, stock assessment, echo surveys, Hecate Strait, NE Pac.)
 2049 : (stock assessment, potential yield, NE Pac.)
 2056 : (models, stock assessment, egg deposition, giant kelp, NE Pac.)
 DF 777 : (sampling, population structure,

- distribution, NE Pac.) 1681 (literature reviews, ocean dumping, fishes, shellfish, World Oceans)
- Hippoglossoides platessoides* (see PLAICE, AMERICAN) 1717 (bibliographies, fishes, World Waters)
- Hippoglossus hippoglossus* (see HALIBUT, ATLANTIC) 1720 (check lists, distribution, pollution, Plecoptera, Trichoptera, St. Croix R., N.B., Gold R., Medway R., N.S.)
- stenolepis* (see HALIBUT, PACIFIC) (habitat, fishery management, Que.)
- HISTORICAL ACCOUNT 1744F (bibliographies, lake trout, World Lakes)
- SP 108 : 5 (fishery biology, models) 1749 (bibliographies, marine fishes, Arctic)
- B 222 : 1 (parasites, sealworm, NW Atl.) 1909 (check lists, new records, marine fishes, Arctic)
- TF 1690 (catch statistics, commercial fishing, Pacific salmon, B.C.) 1932 (bibliographies, scallop fisheries, aquaculture, World Waters)
- 1757F (seasonal variations, habitat, white whale, St. Lawrence R. estuary, Saguenay fjord) 2031 (mail surveys, sport fishing, B.C.)
- Holopedium gibberum* (see CRUSTACEA) 2042 (bibliographies, white whale, World Polar Seas)
- Homarus americanus* (see LOBSTER, AMERICAN) 2060 (annual reports, stock assessment, fishery resources, NE Pac.)
- Hoplostethus atlanticus* (see ROUGHY, ORANGE) 2064 (standards, fishery surveys, cruises, demersal fisheries)
- HUDSON BAY, CANADA 2082 (atlases, cruises, current meter data, Grand Bank, NW Atl.)
- J 47(3) : 533 reproduction, genetics, DNA, lake herring) TH 121 (atlases, sea ice, Labrador Sea)
- HYPERIIDAE DH 82 (check lists, benthos, invertebrates, Hastings Arm, Alice Arm, NE Pac.)
- DF 799 (taxonomy, morphology, Beaufort Sea) CH 33 (oceanographic data, computer programs, Canada)
- Hypomesus pretiosus* (see SMELT, SURF) TS 5493 (data acquisition, hazardous materials, Finland)
- I
- Ictalurus punctatus* (see CATFISH, CHANNEL)
- IDAHO STATE, USA
- J 47(1) : 199 (feeding behavior, diurnal variations, rainbow trout, Snake R.)
- Illex illecebrosus* (see SQUID, SHORT-FINNED)
- ILLINOIS STATE, USA
- J 47(2) : 373 (primary production, watersheds, models, Vermilion R.)
- INDIA
- J 47(12) : 2407 (environmental effects, coastal upwelling, abundance, oil sardine)
- INFORMATION SERVICES
- J 47(1) : 81 (check lists, sea ice, invertebrates, Barrow Strait, N.W.T.)
- : 110 (check lists, zooplankton, lakes, Que.)
- (11) : 2137 (check lists, freshwater fishes, physicochemical properties, lakes, FL)
- SP 31R (fish health protection regulations, manual) B 222 : 47 (parasitism, larvae, sealworm, Halifax, N.S.)
- TF 1634 (abstracts, DFO, Great Lakes Lab., Ont.) TH 122 (environmental impact, benthos, Vancouver Harbour, B.C.)
- 1655 (manuals, sexual maturity, Atlantic herring) DH 82 (check lists, Hastings Arm, Alice Arm, NE Pac.)
- INVERTEBRATA (see also names of organisms)
- J 47(1) : 81 (sea ice, distribution, environmental effects, Barrow Strait, N.W.T.)
- (2) : 440 (zoobenthos, acidification, buffers, stocking, lake trout, Bowland L., Ont.)
- (4) : 711 (benthos, distribution, abundance, habitat)
- : 789 (food, feeding, bluegill, L. Opinicon, Ont.)
- (6) : 1103 (environmental impact, forest industry, debris flow, rivers, OR)
- (7) : 1318 (pollution effects, acidification, population density, rivers, Adirondack Mts., NY)
- : 1364 (community composition, multivariate analysis, St. Lawrence R. estuary, Gulf of St. Lawrence)
- (11) : 2147 (intra-biome distribution, seasonal variations, lakes, Ont.)
- : 2261 (acidification, river discharge, seasonal variations, Plastic L., Ont.)

Isopoda (see CRUSTACEA)

J

JAMES BAY, CANADA

- J 47(2) : 318 (migrations, energy dissipation, reproduction, lake herring, lake whitefish)
 : 335 (migrations, energy dissipation, reproductive patterns, lake herring, lake whitefish)
 (3) : 533 (reproduction, genetics, DNA, lake herring)

JAPAN

- SP 108 : 43 (acoustic surveys, errors, stock assessment, Hokkaido)
 : 111 (population dynamics, reproduction, Japanese anchovy, Sagami Bay)
 : 297 (environmental effects, water currents, eggs, larvae, chub mackerel, Kuroshio Current)
 TS 5495 (tests, shellfish poison)
 5500 (morphology, ecology, Japanese common sea cucumber)
 5501 (taxonomy, morphology, ecology, Yezo scallop)
 EC 12 (economics, market research, Japanese scallop)
 21 (market research, Salmonidae)
 56 (market research, fishery products, Pacific salmon, Atlantic salmon)

JAPAN, SEA OF

- TS 5492 (environmental surveys, primary production, seeding, Yezo scallop, Pos'et Bay)

Juveniles (see names of species)

K

KELP, GIANT (*Macrocystis* sp.)

- MF 2056 (egg deposition, models, Pacific herring, NE Pac.)

KENTUCKY STATE, USA

- J 47(10) : 2057 (trophic relationships, food webs, secondary production, algae, Wilson Creek, Bernheim Forest)

KOKANEE (*Oncorhynchus nerka*)

- J 47(3) : 486 (growth, vertical migrations, fry, Kootenay L., B.C.)
 (11) : 2250 (population genetics, developmental stages, sympatric populations, hybrids)

L

LABRADOR, NFLD.

- B 222 : 67 (parasites, muscles, geographic distribution, sealworm, Atlantic cod)
 MF 2084 (aquaculture, population genetics,

bioselection, Arctic char, Fraser R.)

- DF 748 (sportfishing statistics, catch/effort, Atlantic salmon)
 DH 81 (cruises, sea ice, ice properties)
 EC 3 (fishery economics, pricing, ports)

LABRADOR SEA

- TF 1699 (shelf dynamics, models, Labrador Shelf)
 DF 760 (primary production, phytoplankton, Labrador Shelf)
 784 (fishery surveys, primary production, Labrador Shelf)
 TH 123 (sea ice, atlases, W Labrador Sea)

Labrador Shelf (see LABRADOR SEA)

Labridae (see WRASSES)

Lake... (see name of lake)

LAMPREY SEA (*Petromyzon marinus*)

- J 47(2) : 251 (predation control, interspecific relations, models, L. Superior)
 (9) : 1773 (environmental effects, ammocetes, streams, Great Lakes, North America)
 TF 1736 (population dynamics, environmental effects, limnology, Great Lakes, North America)

Leiostomus xanthurus (see SPOT)*Lepeophtheirus salmonis* (see CALIGOIDA)*Lepidopsetta bilineata* (see SOLE, ROCK)*Lepomis macrochirus* (see BLUEGILL)*Leptodora kindti* (see CLADOCERA)*Limanda proboscidea* (see DAB, LONGHEAD)LINGCOD (*Ophiodon elongatus*)

- J 47(5) : 948 (sexual maturity, age, models, NE Pac.)
 SP 109 (life history, fishery management, NE Pac.)
 TF 1729 (environmental impact, suspended matter, eggs, larvae, NE Pac.)
 MF 2043 (stock assessment, Gulf Islands region, Strait of Georgia, NE Pac.)

LOBSTER, AMERICAN (*Homarus americanus*)

- J 47(3) : 520 (distribution, abundance, reproduction, Grand Manan I., NW Atl.)
 (6) : 1177 (fishery statistics, catch/effort, Lower Argyle, SW N.S.)
 (12) : 2402 (reproductive behavior, induced breeding)
 TF 1650 (pollution, oil spills, Placentia Bay, Nfld.)
 1716 (growth, migrations, N.S.)

- EC 10F (market research, trade, Que.)
 37 (market research, Canada)
 40F (fishery economics, landing statistics, trade, Que.)

LOBSTER, WESTERN ROCK (*Panulirus cygnus*)
 J 47(7) : 1330 (population density, mortality, juveniles, W Australia)

Lobsters (see CRUSTACEA) (see also names of species)

Loligo pealei (see SQUID, LONG-FINNED)

LOUISIANA STATE, USA
 J 47(12) : 2358 (salinity tolerance, physiology, largemouth bass)

Lumpenus lumpretaeformis (see SNAKEBLenny)

Lutjanidae (see SNAPPERS)

Lycodes sagittarius (see EELPOUT, ARCHER)

M

MACKEREL, ATLANTIC (*Scomber scombrus*)
 J 47(11) : 2212 (growth, aging, otoliths, juveniles, Gulf of St. Lawrence)
 IF 202F (fishery economics, seining, S Gulf of St. Lawrence)
 EC 8 (market research, Canada)
 29 (market research, cured products, E Canada)

MACKEREL, CHUB (*Scomber japonicus*)
 SP 108 : 297 (environmental effects, water currents, eggs, larvae, Kuroshio Current, Japan)

Mackerel, Japanese common (see MACKEREL, CHUB)

Macrocystis sp. (see KELP, GIANT)

Maine, Gulf of (see NORTHWEST ATLANTIC OCEAN)

Mallotus villosus (see CAPELIN)

MAMMALIA (see also names of species)
 MF 2063 (resource management, marine mammals, N.W.T., Yukon)
 TS 5508 (resource conservation, habitat, marine mammals, World Oceans)

MANITOBA (PROVINCE), CANADA

J 47(8) : 1484 (stock identification, subpopulations, genomes, lake whitefish, L. Winnipeg)
 MF 2081 (bathymetry, morphometry, physicochemical properties, Dauphin L.)
 2083 (sampling, zooplankton, Dauphin L.)
 DF 789 (physical limnology, chemical limnology, Dauphin L.)

MARITIME PROVINCES (see also New Brunswick, Nova Scotia, Prince Edward Island)

TF 1761 : 25 (aquaculture, diseases, Atlantic salmon)

EC 3 (fishery economics, pricing, ports)

Melanogrammus aeglefinus (see HADDOCK)

Merluccius productus (see HAKE, PACIFIC)

METEOROLOGY

J 47(7) : 1427 (water temperature, variations, Long Point Bay, L. Erie)
 DF 790 (data, Arctic Char Project, Nauyuk L., N.W.T.)
 DH 75 (data, NE Newfoundland Shelf, NW Atl.)
 CH 36 (anemometers, wind tunnels, ships)

METHODOLOGY AND TECHNIQUES

J 47(1) : 16 (biofilters, microbiology)
 : 163 (radiochemistry, age determination, otoliths, deepwater redfish)
 (2) : 244 (census, population density, ringed seal, Barrow Strait, N.W.T.)
 (3) : 516 (analyses, environmental effects, fishery management)
 : 656 (sampling, periphyton)
 (6) : 1166 (chromatographic techniques, photosynthetic pigments, sedimentation)
 (7) : 1258 (biofilters, growth, ultraphytoplankton)
 (9) : 1813 (measurement, production, bacteria, rivers, Ont.)
 : 1821 (sediment sampling, geochronometry, lead, Big Moose L., Adirondack State Park, NY)
 (10) : 1875 (models, fishery management, biomass, fish eggs, larvae)
 : 2049 (models, economic analysis, insecticides, blackfly)
 (11) : 2123 (pollution monitoring, chemical pollutants, indicator species, white croaker, CA)
 : 2212 (aging, otoliths, growth, juveniles, Atlantic mackerel, Gulf of St. Lawrence)
 : 2219 (otoliths, growth, length, fishes)
 (12) : 2328 (bioassays, nutrients, phytoplankton, Flathead L., MT)
 : 2351 (radioactive tracers, primary production, nutrients, measurement)
 : 2375 (prediction, sexual maturity, females, Pacific herring)
 SP 108 : 43 (acoustic surveys, errors, stock assessment, Japanese sardine, Hokkaido, Japan)
 TF 1606 (chemical extraction, organic compounds, sea water)
 1726 (stereophotography, ocean floor, Scotian Shelf, NW Atl.)

- 1761 : 31 (disease detection, aquaculture, salmonids)
- TH 127 : (current measurement, equipment, Georges Bank, NW Atl.)
- DH 60(7) : (sampling, hydrocarbons, Mackenzie R. delta, Beaufort Sea)
- CH 36 : (anemometers, wind tunnels, ships)
- TS 5495 : (tests, shellfish poison, Japan)
- 5496 : (antimony trioxide, manufacture)
- 5513 : (fish handling, robots, freezing storage)
- 5519 : (tests, biological poisons, scallops)
- MEXICO, GULF OF
- J 47(11) : 2112 (geographical distribution, population structure, golden crab, red crab)
- MICHIGAN, LAKE, USA
- J 47(3) : 524 (population dynamics, bloater)
- (5) : 977 (abundance, predators, *Daphnia*, opossum shrimp)
- (9) : 1738 (predation, plankton feeders, zooplankton, alewife)
- : 1836 (bacterioplankton, food webs, grazing)
- MICHIGAN STATE, USA
- J 47(1) : 41 (detritus, food, juveniles, white sucker)
- Micropterus salmoides* (see BASS, LARGEMOUTH)
- MIDGE, PHANTOM (*Chaoborus trivittatus*)
- J 47(5) : 1043 (defence mechanisms, transparency, predation, fishes)
- MIGRATIONS AND TAGGING
- J 47(2) : 318 (migrations, energy dissipation, reproduction, lake herring, lake whitefish, James Bay, Canada)
- : 335 (migrations, energy dissipation, reproductive patterns, lake herring, lake whitefish, James Bay, Canada)
- : 395 (vertical migrations, zooplankton, *Daphnia galeata mendotae*, L. George, Ont.)
- (3) : 486 (vertical migrations, growth, fry, kokanee, Kootenay L., B.C.)
- : 492 (tagging, pigments, aquatic plants, Hudson R., NY)
- : 635 (models, skipjack tuna)
- (4) : 794 (migrations, northern pink shrimp, Gulf of St. Lawrence)
- (6) : 1136 (migrations, osmoregulation, smolts, Atlantic salmon, Freshwater R., Nfld.)
- (8) : 1534 (migrations, antifreeze, blood, Atlantic herring, Gulf of St. Lawrence)
- : 1551 (tagging, growth, mortality, sablefish, NE Pac.)
- (9) : 1755 (vertical migrations, interspecific relationships, sockeye salmon, threespine stickleback, zooplankton, B.C.)
- : 1796 (vertical migrations, environmental factors, juveniles, sockeye salmon, lakes, B.C.)
- : 1803 (homing behavior, spawning, muskellunge, Stony L., Ont.)
- (10) : 1920 (vertical migrations, echo surveys, air bubbles, Pacific herring, Dabob Bay, Puget Sound, WA, SE AK)
- : 1944 (activity patterns, red king crab, Kodiak Bay, AK)
- : 1959 (spawning migrations, homing behavior, yellow perch, Lochaber L., N.S.)
- : 1963 (horizontal movements, vertical migrations, steelhead trout, Dean Channel, Fisher Channel, B.C.)
- (11) : 2079 (migrations, wetlands, juveniles, chum salmon, chinook salmon, Puyallup R. estuary, WA)
- : 2242 (migrations, breeding, population structure, snow crab, Bonne Bay, Nfld.)
- (12) : 2315 (migrations, catch-age analysis, models, Pacific halibut)
- SP 108 : 161 (migrations, environmental effects, juveniles, pink salmon, Kamchatka R., USSR)
- : 195 (migrations, pomfret, N Pac.)
- B 222 : 199 (migrations, seasonal variations, grey seal, NW Atl.)
- TF 1700 : (migrations, models, juveniles, Pacific salmon, Hecate Strait, NE Pac.)
- 1716 : (migrations, growth, American lobster, N.S.)
- 1737 : (Atlantic salmon, NW Atl.)
- 1761 : 143 (tagging, research programs, aquaculture, Atlantic cod, Norway)
- MF 2038 : (migrations, fishery statistics, sockeye salmon, Skeena R., B.C.)
- 2041 : (marine migrations, Atlantic salmon, NW Atl.)
- 2053 : (tagging, stock assessment, escapement, coho salmon, Salmon R., B.C.)
- 2065 : (tagging, escapement, chinook salmon, Campbell R., Quinsam R., B.C.)
- 2066 : (tagging, escapement, biological data, chinook salmon, Harrison R., B.C.)
- DF 768 : (migrations, catch statistics, trawling, salmonids, Fraser R., B.C.)
- 769 : (tagging, Arctic char, Victoria I., N.W.T.)
- 775 : (tagging, sterilization, coho salmon, NE Pac.)
- 778 : (spiny dogfish, NE Pac.)
- 780 : (fishery surveys, seining, fishes, Fraser R., B.C.)
- 802 : (migrations, habitat, stream flow, coho salmon, chinook salmon,

- Kloiya Creek, B.C.)
 811 (stock assessment, biological data,
 Arctic char, Cambridge Bay, N.W.T.)
 TS 5517 (migratory species, biology)
- MINNESOTA STATE, USA
 J 47(4) : 687 (limnology, light, lakes)
 (8) : 1562 (stock identification, DNA,
 dwarfs, lake herring, Ten Mile L.)
- MINNOW, FATHEAD (*Pimephales promelas*)
 J 47(6) : 1157 (pollution effects,
 insecticides, food, growth, larvae)
- Mizuhopecten yessoensis* (see SCALLOP, JAPANESE)
 (Yezo scallop)
- MODELS
 J 46(S1) : 4 (physical oceanography, seasonal
 variations, Cape Sable, NW Atl.)
 : 21 (physical oceanography, particle
 drift, Scotian Shelf, NW Atl.)
 : 55 (vertical distribution, eggs,
 haddock, Browns Bank, NW Atl.)
 : 183 (phytoplankton, production,
 Scotian Shelf, NW Atl.)
 47(1) : 24 (growth, maturity, survival,
 fishes)
 : 55 (pollution effects, acid rain,
 lakes, Ont.)
 : 67 (pollution effects, acid rain,
 lakes, E Canada)
 : 122 (age composition, population
 structure, females, northern fur
 seal, Pribilof Is., Bering Sea)
 : 145 (fishery management, harvesting,
 sockeye salmon, Fraser R., B.C.)
 : 180 (respiration, ponds, shrimp
 aquaculture, *Penaeus*, Oahu, HI)
 : 184 (growth, population structure,
 Pacific cod, longneck croaker,
 Russell's mackerel scad)
 (2) : 251 (intraspecific relationships,
 predator control, sea lamprey, L.
 Superior, North America)
 : 274 (age, body size, growth,
 Pacific halibut)
 : 301 (growth, age composition,
 southern bluefin tuna)
 : 373 (primary production, watersheds,
 Vermilion R., IL)
 (3) : 460 (mathematical, gillnets,
 Atlantic herring, Notre Dame Bay,
 Nfld.)
 : 480 (phosphorus, pollution, L.
 Washington, WA)
 : 548 (aquatic, pollution, mercury)
 : 554 (metabolism, food, feeding,
 yellow perch)
 : 595 (fishery management,
 recruitment, harvesting)
 : 611 (stock identification, genetics)
 : 635 (migrations, tagging, skipjack
 tuna)
 (4) : 672 (somatic growth, Pacific hake,
 Strait of Georgia, NE Pac.)
- : 682 (respiration, ponds)
 : 838 (reproduction, cycles, sockeye
 salmon, Adams R., B.C.)
 (5) : 894 (abundance, fishery surveys,
 trawls)
 : 940 (morphometry, stratification,
 lakes)
 : 948 (sexual maturity, age, lingcod,
 NE Pac.)
 : 960 (growth, body size, temperature
 effects, roach, Tjeukemeer,
 Netherlands)
 : 968 (stock identification, genetics,
 Pacific salmon)
 : 1004 (sampling, beach seines,
 fishes, Que.)
 (6) : 1128 (pollution effects,
 acidification, population number,
 brook trout, lake trout, Adirondack
 Mts., NY)
 : 1148 (fecundity, body size,
 quillback rockfish, copper rockfish)
 (7) : 1339 (pollution monitoring, pH,
 Chrysophyceae, lakes, CT)
 : 1416 (equations, growth, fishery
 data)
 : 1453 (fishery data, hatcheries,
 Pacific salmon, B.C.)
 (8) : 1570 (mathematical analysis,
 comparative studies, stock
 identification, American shad,
 striped bass)
 (9) : 1664 (bioenergetics, habitat
 selection, bluegill)
 : 1765 (population density, mortality,
 marine environment, coho salmon)
 : 1788 (fishery management,
 reproduction)
 (10) : 1875 (fishery management, sampling,
 fish eggs, larvae)
 : 1929 (correlation analysis, primary
 production, trophic state,
 freshwater fishes)
 : 2039 (mathematical, drift feeding,
 habitat, Arctic grayling, rivers,
 AK)
 : 2049 (insecticides, economic
 analysis, blackfly)
 : 2106 (threshold fishery management,
 exploitation)
 (11) : 2235 (stock identification,
 approximation, chinook salmon)
 (12) : 2315 (catch-age analysis,
 migrations, Pacific halibut)
 : 2364 (statistical analysis, age
 composition, fishes)
 SP 108 : 5 (fishery biology, historical
 account)
 : 67 (analysis, catch statistics,
 environmental conditions, Pacific
 salmon, NE Pac.)
 : 87 (stock assessment, errors)
 : 101 (stock assessment, errors)
 : 121 (stock assessment, errors, S
 China Sea)
 : 127 (catch statistics, age

- composition, Pacific halibut, Gulf of Alaska)
- : 247 (ocean-atmospheric system, annual variations, NE Pac.)
 - : 255 (food webs, transport processes, biomass)
 - : 335 (recruitment, environmental effects, Korean prawn, Bohai Sea, China)
- B 222 : 261 (parasitism, life cycle, sealworm)
- : 273 (parasitism, life cycle, sealworm, Scotland)
 - : 289 (growth curves, parasites, sealworm, Atlantic cod, NW Atl.)
- TF 1699 (shelf dynamics, Labrador Shelf)
- 1700 (migrations, juveniles, Pacific salmon, Hecate Strait, NE Pac.)
- 1704 (suspended sediment analysis, rivers, P.E.I.)
- 1733 (fishery management, escapement, approximation, Pacific salmon)
- 1761 : 61 (aquaculture, culture tanks, genetics, Arctic char)
- : 133 (mathematical, growth, aquaculture, chinook salmon)
- MF 2056 (stock assessment, egg deposition, giant kelp, Pacific herring, NE Pac.)
- EC 18 (total allowable catch, mortality)
- 53 (simulation, pricing, Pacific salmon, B.C.)
- 54 (computer model, cost analysis, aquaculture, Pacific salmon, Atlantic salmon, B.C.)
- MOLLUSCA (see also names of species)
- J 47(4) : 821 (acidification, lakes, E Canada)
- (7) : 1302 (respiration, gills, oxygen demand, NE Pac.)
- MF 2031 (scallop fisheries, aquaculture, bibliographies, World Waters)
- EC 12 (economics, market research, scallops, Canada, USA, Japan)
- Monodon monoceros* (see NARWHAL)
- Monogenea (see DICLIDOPHORIDAE)
- MONTANA STATE, USA
- J 47(12) : 2328 (bioassays, nutrients, phytoplankton, Flathead L.)
- Morone americana* (see PERCH, WHITE)
- saxatilis* (see BASS, STRIPED)
- MORPHOLOGY AND TAXONOMY
- J 47(1) : 174 (morphology, reproductive behavior, males, pink salmon, Carp R., Ont.)
- (5) : 984 (stock identification, DNA, genetics, *Salvelinus* spp.)
 - (8) : 1562 (stock identification, DNA, dwarfs, lake herring, Ten Mile L., MN)
- SP 110 (histology, reproductive tract,
- sexual maturity, Atlantic cod, NW Atl.)
- 111 (morphology, histology, larvae, juveniles, Japanese scallop, NE Pac.)
- B 221 (decapod Crustacea, new species, NW Atl.)
- MF 2047 (identification keys, Crustacea, Beaufort Sea)
- 2048 (identification keys, Isopoda, S Beaufort Sea)
- DF 799 (Amphipoda, Beaufort Sea)
- TS 5500 (common sea cucumber, Japan)
- 5501 (Yezo scallop, Japan)
- 5505 (Diclidophoridae)
- 5507 (new genus, new species, parasites, *Phocascaris phocae*, harp seal, White Sea)
- 5509 (morphology, identification keys, Peritricha)
- MORPHOMETRY
- J 47(4) : 687 (limnology, light, lakes)
- (5) : 940 (stratification, models, lakes)
- : 1047 (environmental effects, phytoplankton, lakes, Que.)
- MOSQUITOFISH (*Gambusia affinis*)
- J 47(3) : 471 (phosphorus, interspecific relationships, plankton)
- MUSKELLUNGE (*Esox masquinongy*)
- J 47(9) : 1803 (homing behavior, spawning, Stony L., Ont.)
- MUSSEL, BLUE (*Mytilus edulis*)
- TF 1703 (mortality, diseases, B.C.)
- 1746 (pollution effects, dredging, Bay of Chaleur, Gulf of St. Lawrence)
- EC 19 (market research, economics, aquaculture, Canada)
- Mya arenaria* (see CLAM, SOFTSHELL)
- Mysidacea (see CRUSTACEA)
- Mysis relicta* (see SHRIMP, OPOSSUM)
- Mytilus edulis* (see MUSSEL, BLUE)
- N
- "Nanamako" (see SEA CUCUMBER, JAPANESE COMMON)
- NARWHAL (*Monodon monoceros*)
- TF 1747 (harvest statistics, population structure, Admiralty Inlet, Baffin I., N.W.T.)
- NEMATODA (roundworms)
- J 47(4) : 683 (parasites, sealworm, brook trout, Atlantic cod, sea raven)
- (12) : 2293 (experimental infection, "whaleworm", sealworm, rainbow trout)
- B 222 : 27 (environmental effects, water

- temperature, hatching)
: 83 (parasites, larvae, hosts, Sable I., N.S.)
- TS 5499 (parasitism, helminths, freshwater fishes)
5507 (new genus, new species, *Phocascaris phocae*, harp seal, White Sea)
- NETHERLANDS
J 47(5) : 960 (growth, temperature effects, body size, roach, Tjeukemeer)
- NEW BRUNSWICK (PROVINCE), CANADA
TF 1720 (check lists, distribution, pollution, Plecoptera, Trichoptera, St. Croix R.)
1727 (acidification, water analysis, fishes, freshwater lakes)
1751 (habitat, man-induced effects, environmental effects, research programs, Catamaran Brook, Miramichi R.)
1761 : 49 (aquaculture, population genetics, bioselection, Atlantic salmon, St. Andrews)
: 107 (rearing, aquaculture, hydroelectric power plants, Atlantic salmon, Mactaquac)
MF 2054 (research programs, personnel, DFO, St. Andrews)
DF 791 (catch statistics, distribution records, Mactaquac Area, Saint John R.)
- NEW GENERA
TS 5507 (parasites, *Phocascaris*, harp seal, White Sea)
- NEW RECORDS
J 47(9) : 1830 (distribution, biological data, long-finned squid, N.S., Nfld.)
MF 1932 (silver rockling, bigeye unerak, aurora unerak, archer eelpout, snakeblenny, longnose dab, Arctic)
- NEW SPECIES
B 221 (morphology, taxonomy, *Bythocaris spinipleura*, NW Atl.)
TS 5507 (parasites, *Phocascaris phocae*, harp seal, White Sea)
- NEW YORK STATE, USA
J 47(3) : 492 (aquatic plants, pigments, tagging, Hudson R.)
(6) : 1128 (acidification, models, population number, brook trout, lake trout, Adirondack Mts.)
(7) : 1318 (pollution effects, acidification, population density, invertebrates, rivers, Adirondack Mts.)
(9) : 1821 (sediment sampling, geochronometry, lead, Big Moose L., Adirondack State Park)
- NEW ZEALAND
EC 75 (fishery management, quota)
- regulations, evaluation)
- NEWFOUNDLAND (PROVINCE), CANADA
J 47(3) : 460 (models, gillnets, Atlantic herring, Notre Dame Bay)
(4) : 813 (smolting, seasonal variations, Atlantic salmon, Western Arm Brook)
(6) : 1136 (osmoregulation, migrations, smolts, Atlantic salmon, Freshwater R.)
(9) : 1830 (new records, biological data, long-finned squid)
(11) : 2242 (population structure, migrations, breeding, snow crab, Bonne Bay)
B 222 : 67 (parasites, muscles, geographic distribution, sealworm, Atlantic cod)
TF 1580 (population dynamics, spawning, eggs, capelin, Conception Bay)
1650 (pollution, oil spills, American lobster, Placentia Bay)
1711 (acidification, freshwater lakes)
1761 : 25 (aquaculture, diseases, Atlantic salmon)
DF 748 (sportfishing statistics, catch/effort, Atlantic salmon, W Nfld.)
IF 201 (aquaculture, Atlantic cod)
EC 2 (fishery industry, income)
3 (fishery economics, pricing, ports)
4 (fishery economics, costs, fishing operations)
9 (economics, market research, capelin)
30 (fishery economics, potential resources, bluefin tuna)
36 (costs, fishing operations)
- NORTH AMERICA
J 47(2) : 357 (biomass, environmental effects, aquatic plants)
(6) : 1065 (environmental effects, climatic warming, habitat, brook trout)
: 1093 (biogeography, phylogenetics, DNA, sauger, walleye)
(7) : 1468 (phosphorus, nitrogen, growth, phytoplankton, lakes)
- NORTH ATLANTIC OCEAN
TF 1743 (recruitment, fishery resources)
- NORTH PACIFIC OCEAN
SP 108 (physical oceanography, recruitment, stock assessment)
: 51 (recruitment, environmental effects, models, Pacific hake)
: 181 (environmental effects, atmospheric circulation, population number, fishes)
: 195 (migrations, feeding, spawning, pomfret)
TS 5506 (census, population structure, marine mammals)
- NORTHEAST PACIFIC OCEAN
J 47(3) : 505 (predation, competition,

- zooplankton, Pacific herring)
- (4) : 672 (somatic growth, models, Pacific hake, Strait of Georgia)
- (5) : 948 (sexual maturity, age, models, lingcod)
- : 992 (abundance, harbor seal)
- (6) : 1116 (catch/effort, fishing vessels, fishermen, Pacific salmon)
- (7) : 1302 (respiration, gills, oxygen demand, marine molluscs)
- : 1356 (environmental effects, oceanic eddies, retention, ichthyoplankton, Hecate Strait)
- (8) : 1495 (ultrastructure, ovaries, membranes, roes, Pacific herring)
- : 1505 (vitellogenesis, histology, ovaries, Pacific herring)
- : 1551 (tagging, growth, mortality, sablefish)
- (12) : 2339 (biological poisons, geographical distribution, temporal distribution, phytoplankton, Strait of Georgia)
- : 2390 (spawning, environmental effects, tidal cycles, Pacific herring)
- SP 108 : 81 (stock assessment, population structure, Pacific hake)
- : 247 (ocean-atmosphere system, annual variations, models)
- : 327 (recruitment, population number, environmental effects, rock sole, N Hecate Strait)
- : 359 (biological production, commercial fishing, fishes)
- 109 : (life history, fishery management, lingcod)
- 111 : (morphology, taxonomy, larvae, juveniles, Japanese scallop)
- TF 1700 : (migrations, models, juveniles, Pacific salmon, Hecate Strait)
- 1719 : (fishery surveys, population structure, Pacific salmon, Hecate Strait)
- 1721 : (fishery surveys, bait, sport fishing, Pacific herring, Johnstone Strait, Strait of Georgia)
- 1728 : (catch statistics, catch/effort, fishery management, demersal fisheries)
- 1729 : (environmental impact, suspended matter, eggs, larvae, lingcod, Pacific herring, surf smelt)
- 1730 : (feeding, scats, harbor seal, Strait of Georgia)
- 1732 : (stock assessment, demersal fishes)
- MF 1872 : (sport fishing, creel survey, catch/effort, Strait of Georgia)
- 2032 : (sport fishing, creel survey, catch/effort, demersal species, Pacific salmon, Strait of Georgia)
- 2033 : (sport fishing, creel survey, catch/effort, demersal species, Pacific salmon, Strait of Georgia)
- 2034 : (sport fishing, creel survey, catch/effort, demersal species, Pacific salmon, Strait of Georgia)
- 2035 : (sport fishing, creel survey, catch/effort, demersal species, Pacific salmon, Strait of Georgia)
- 2036 : (sport fishing, creel survey, catch/effort, demersal species, Pacific salmon, Strait of Georgia)
- 2040 : (cruises, stock assessment, echo surveys, Pacific herring, Hecate Strait)
- 2043 : (stock assessment, lingcod, Gulf Islands region, Strait of Georgia)
- 2045 : (cruises, sampling, fishery data, rockfishes)
- 2049 : (stock assessment, potential yield, Pacific herring)
- 2056 : (models, stock assessment, egg deposition, giant kelp, Pacific herring)
- 2061 : (cruises, sampling, biological data, rockfishes)
- 2064 : (stock assessment, fishery resources, annual reports)
- 2072 : (spawning, seasonality, fishery surveys, Pacific cod)
- DF 777 : (sampling, population structure, distribution, Pacific herring)
- 778 : (migrations, tagging, spiny dogfish)
- 783 : (fishery surveys, demersal species, Hecate Strait)
- DH 82 : (check lists, invertebrates, Hastings Arm, Alice Arm)
- NORTHWEST ATLANTIC OCEAN
- J 46(S1) : 4 (oceanography, seasonal variations, models, Cape Sable)
- : 55 (vertical distribution, eggs, models, haddock, Browns Bank)
- : 68 (spawning, environmental effects, haddock, Georges Bank, Browns Bank)
- : 93 (dispersion, larvae, haddock, Browns Bank)
- 47(1) : 163 (age determination, radiochemistry, otoliths, deepwater redfish)
- (2) : 385 (catchability, density dependence, haddock, Georges Bank)
- (3) : 520 (distribution, abundance, reproduction, American lobster, Grand Manan I.)
- : 561 (age, growth, reproduction, harbor porpoise, Bay of Fundy)
- (5) : 1011 (predation, green sea urchin, algae, E Canada)
- (6) : 1060 (habitat, spawning populations, Atlantic herring, Georges Bank)
- (11) : 2158 (growth, reproduction, annual variations, harbor porpoise, Bay of Fundy)
- SP 110 : (histology, reproductive tract, sexual maturity, Atlantic cod)
- B 221 : (morphology, taxonomy, distribution, new species, decapod

- Crustacea)
- 222 : 1 (parasites, historical account, sealworm, E Canada)
- : 171 (population dynamics, fecundity, pups, grey seal)
- : 185 (fecundity, census, pups, grey seal)
- : 199 (migrations, distribution, seasonal variations, grey seal)
- : 215 (feeding behavior, food, seasonal variations, grey seal, E Canada)
- : 289 (parasites, growth curves, models, sealworm, Atlantic cod) (air pollution, carbon dioxide, fisheries)
- TF 1652 (mesh regulations, trawl nets, demersal fishes, Scotia-Fundy Region)
- 1691 (parasites, biology, Caligoida, Atlantic salmon, Bay of Fundy)
- 1715 (aquaculture, effluents, environmental impact, salmonids, Bay of Fundy)
- 1724 (migrations, tagging, Atlantic salmon)
- 1737 (spawning, Atlantic salmon, Ungava Bay)
- 1738F (pollution effects, aquaculture effluents, Atlantic salmon, Bay of Fundy)
- 1760 (algal blooms, pollution effects, aquaculture, marine fishes, Bay of Fundy)
- 1761 : 11 (pollution effects, aquaculture effluents, anoxic sediments, Bay of Fundy)
- MF 2041 (marine migrations, mortality, Atlantic salmon)
- DF 785 (primary production, Georges Bank)
- TH 121 (cruises, current meter data, atlases, Grand Bank)
- 127 (current measurement, equipment, Georges Bank)
- 128 (environmental monitoring, nuclear power plants, Point Lepreau, Bay of Fundy)
- DH 75 (oceanographic data, meteorological data, ice observations, NE Newfoundland Shelf)
- CH 37 (surface water waves, wind waves, wave current interactions, offshore structures)
- TS 5516 (feeding behavior, juveniles, Atlantic cod, Newfoundland Shelf)
- EC 16 (shared stocks, Atlantic herring, haddock, Georges Bank, Gulf of Maine)
- 31 (purse seining, Atlantic herring)
- 34 (fishing vessels, Scotia-Fundy Region)
- NORTHWEST TERRITORIES (TERRITORY), CANADA
- J 47(1) : 81 (sea ice, distribution, environmental effects, invertebrates, Barrow Strait)
- (2) : 244 (census, population density, ringed seal, Barrow Strait)
- (6) : 1071 (distribution, abundance, habitat, bearded seal, Penny Strait)
- (7) : 1402 (primary production, inorganic nutrients, seawater, sea ice, Barrow Strait)
- (8) : 1545 (periphyton, nitrogen fixation, fertilizers, lakes)
- (10) : 1865 (paleolimnology, microfossils, ecological succession, McLeod Bay, Great Slave L.)
- TF 1747 (harvest statistics, population structure, narwhal, Admiralty Inlet, Baffin I.)
- MF 2063 (resource management, marine mammals, fishery resources, Arctic zone)
- DF 726 (water chemistry, lakes, channels, Mackenzie delta, Tuktoyaktuk Peninsula)
- 729 (water chemistry, lakes, channels, Mackenzie delta, Tuktoyaktuk Peninsula)
- 769 (catch statistics, commercial fishing, sport fishing, Arctic char, Victoria I.)
- 790 (limnology, meteorology, hydrology, Arctic Char Project, Nauyuk L.)
- 800 (harvest, stock assessment, population structure, white whale, Mackenzie R. estuary)
- 801 (water temperature, salinity, water density, Tuktoyaktuk Harbour, Mason Bay)
- 811 (stock assessment, biological data, migrations, Arctic char, Cambridge Bay)
- NORWAY
- J 47(1) : 166 (water quality, fish removal, biomanipulation, algae, L. Haugatjern)
- (2) : 364 (phytoplankton, phosphorus, L. Gjersjoen)
- (6) : 1112 (catching methods, bait, longlining, Atlantic cod)
- TF 1761 (conferences, aquaculture, finfish)
- : 7 (aquaculture, fish health, water quality)
- : 19 (aquaculture, vibriosis, vaccination, Atlantic salmon)
- : 41 (aquaculture, genetics, natural populations, salmonids)
- : 91 (aquaculture, diets, Atlantic salmon, Atlantic cod, Atlantic halibut, American plaice)
- : 143 (aquaculture, tagging, research programs, Atlantic cod)
- : 153 (aquaculture, techniques, Atlantic halibut)
- TS 5514 (economic analysis, fishery industry plants, shrimp fisheries)
- NOVA SCOTIA (PROVINCE), CANADA
- J 47(4) : 813 (smolting, seasonal variations, Atlantic salmon, South R.)

- (6) : 1177 (fishery statistics, catch/effort, American lobster, Lower Argyle, SW N.S.)
- (9) : 1830 (new records, biological data, long-finned squid)
- (10) : 1959 (spawning behavior, spawning grounds, homing behavior, yellow perch, Lochaber L.)
- (12) : 2420 (acidification, rivers, buffers, Atlantic salmon)
- : 2422 (acidification, buffers, reproduction, Atlantic salmon, Medway R., Westfield R.)
- : 2431 (acidification, buffers, physiology, Atlantic salmon, Westfield R.)
- : 2441 (acidification, buffers, physiology, Atlantic salmon, Westfield R.)
- : 2451 (acidification, buffers, physiology, gills, Atlantic salmon, Westfield R., Medway R.)
- B 222 : 47 (parasites, larvae, sealworm, invertebrates, Northwest Arm, Halifax)
- : 83 (parasites, hosts, larvae, Nematoda, Sable I.)
- : 147 (parasites, seasonal variations, abundance, sealworm, grey seal, Sable I.)
- TF 1563 (stock identification, scales, commercial fisheries, Atlantic salmon, Northumberland Strait)
- 1693 (marine environment, water quality, pollution maps, Halifax Harbour)
- 1705 (production, juveniles, alewife, blueback herring, Giant L.)
- 1710 (habitat improvement, spawning grounds, nursery grounds, LaHave R.)
- 1716 (growth, migrations, American lobster)
- 1720 (check lists, distribution, pollution, Plecoptera, Trichoptera, Gold R., Medway R.)
- 1755 (aquaculture, water quality, dissolved substances, Atlantic salmon, Mersey R.)
- MF 2059 (habitat, water quality, Atlantic salmon, Sackville R.)
- 2075 (fishery data, stock assessment, Atlantic salmon, North R.)
- 2077 (biological data, escapement, exploitation, Atlantic salmon, Liscomb R.)
- DF 764 (catch statistics, distribution records, juveniles, Atlantic salmon, Stewiacke R., St. Mary's R.)
- EC 57 (fishing industry, economics, sociology, Cape Breton I.)

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OBITUARY

- J 47(2) : 454 (Dr. John Reginald Dingle, 1921-1989)
- (7) : 1478 (W. E. (Wally) Johnson, 1923-1989)

OCEANOGRAPHY AND LIMNOLOGY

- J 46(S1) : 4 (physical oceanography, seasonal variations, models, Cape Sable, NW Atl.)
- : 21 (particle drift, models, Scotian Shelf, NW Atl.)
- : 44 (environmental effects, plankton, Scotian Shelf, NW Atl.)
- 47(1) : 16 (microbiology, biofilters)
- : 92 (debris flow, pulp wastes, Ogeechee R., GA)
- : 100 (salinity, environmental effects, plankton, Great Salt L., UT)
- : 136 (nutrients, transport, pink salmon, rainbow trout, Sashin Creek, AK)
- : 156 (metalimnion, phosphorus, Eau Galle Reservoir, WI)
- : 166 (water quality, fish removal, biomanipulation, L. Haugatjern, Norway)
- : 180 (respiration, ponds, models, aquaculture, marine shrimp, Oahu, HI)
- (2) : 346 (surface temperature, coastal zone, B.C.)
- : 357 (limnology, biomass, aquatic plants, North America)
- : 373 (primary production, watersheds, models, Vermilion R., IL)
- : 412 (water chemistry, acidification, buffers, Bowland L., Ont.)
- (3) : 588 (limnology, detritus, rivers, Buzzards Branch, VA)
- (4) : 682 (respiration, models, ponds)
- : 687 (morphometry, light, lakes, MN, Ont.)
- (5) : 940 (morphometry, stratification, lakes)
- (6) : 1077 (phosphorus, lakes, Canada, USA)
- : 1140 (dentrification, sediments, Little Lost Man Creek, CA)
- : 1166 (limnology, photosynthetic pigments, sedimentation)
- : 1206 (morphometry, thermal structure, lake basins, Trout L., WI)
- (7) : 1269 (sedimentation, retention, elements, Blue Chalk L., Ont.)
- : 1356 (oceanic eddies, ichthyoplankton, Hecate Strait, NE Pac.)
- : 1427 (water temperature, variations, Long Point Bay, L. Erie)
- : 1434 (environmental effects, water quality, Long Point Bay, L. Erie)
- : 1468 (phosphorus, nitrogen, growth, phytoplankton, lakes, North America)
- (8) : 1537 (dissolved organic carbon, catchments, rivers, S Que.)
- : 1545 (periphyton, nitrogen fixation, fertilizers, lakes, N.W.T.)
- (9) : 1684 (wood, debris, rivers, SE AK)

- : 1700 (fluorescence, salinity, chlorophylls, Pawcatuck R. estuary, RI)
 : 1773 (streams, environmental effects, ammocetes, sea lamprey, Great Lakes, North America)
 : 1821 (sediment sampling, geochronometry, lead, Big Moose L., Adirondack State Park, NY)
 (10) : 1846 (commercial fishing, fishing vessels, catch statistics, Pacific salmon, Vancouver I., B.C.)
 : 1865 (paleolimnology, microfossils, ecological succession, McLeod Bay, Great Slave L., N.W.T.)
 (11) : 2068 (hydrography, geographical distribution, larvae, northern pink shrimp, Gulf of St. Lawrence)
 : 2099 (exchange flow, streams, nitrates, Little Lost Man Creek, CA)
 : 2195 (commercial fishing, population structure, summer, Pacific hake, Vancouver I., B.C.)
 (12) : 2351 (primary production, nutrients, measurement, radioactive tracers)
 SP 108 : (physical oceanography, recruitment, stock assessment, N Pac.)
 : 1 (oceanography, fishery biology, research programs, World Oceans)
 : 247 (ocean-atmosphere system, annual variations, models, NE Pac.)
 : 265 (water currents, fishes, off Vancouver I., B.C.)
 : 359 (physical oceanography, biological production, fishes, NE Pac.)
 B 220F : (chemical oceanography, Gulf of St. Lawrence)
 TF 1699 : (shelf dynamics, models, Labrador Shelf)
 1710 : (environmental conditions, spawning grounds, nursery grounds, Atlantic salmon, LaHave R., N.S.)
 1726 : (stereophotography, ocean floor, Scotian Shelf, NW Atl.)
 1727 : (water analysis, lakes, N.B.)
 1736 : (environmental effects, sea lamprey, Great Lakes, North America)
 1740 : (phytoplankton, photosynthesis, computer programs)
 1755 : (water quality, dissolved substances, aquaculture, Atlantic salmon, Mersey R., N.S.)
 MF 2081 : (bathymetry, morphometry, physicochemical properties, Dauphin L., Man.)
 DF 726 : (water chemistry, lakes, channels, Mackenzie delta, Tuktoyaktuk Peninsula, N.W.T.)
 729 : (water chemistry, lakes, channels, Mackenzie delta, Tuktoyaktuk Peninsula, N.W.T.)
 781 : (limnology, hydrology, habitat improvement, salmonids, Fraser R. estuary, B.C.)
 789 : (physical limnology, chemical limnology, Dauphin L., Man.)
 790 : (limnological data, hydrology, Arctic Char Project, Nauyas L., N.W.T.)
 801 : (water temperature, salinity, water density, Tuktoyaktuk Harbour, Mason Bay, N.W.T.)
 TH 120 : (current meter data, Gulf of St. Lawrence, St. Lawrence R. estuary)
 121 : (cruises, current meter data, atlases, Grand Bank, NW Atl.)
 123 : (sea ice, atlases, Labrador Sea)
 126 : (physical oceanographic data, Gulf of St. Lawrence)
 127 : (current measurement, equipment, Georges Bank, NW Atl.)
 DH 5(21) : (water temperature, salinity, current measurement, Queen Elizabeth I., Arctic)
 75 : (oceanographic data, sea ice, NE Newfoundland Shelf, NW Atl.)
 77 : (oceanographic data, zooplankton, Barkley Sound, Vancouver I., B.C.)
 78 : (oceanographic data, currents, temperature, Baffin Bay, Arctic)
 79 : (oceanographic data, currents, temperature, Baffin Bay, Arctic)
 81 : (cruises, sea ice, ice properties, Labrador)
 84 : (water temperature, monitoring, Gulf of St. Lawrence, Scotia-Fundy Region)
 CH 33 : (oceanographic data, computer programs, Canada)
 37 : (surface water waves, wind waves, wave current interaction, NW Atl.)
 EC 25 : (ocean industry, technology, B.C.)
Odobaeus rosmarus divergens (see WALRUS, PACIFIC)
rosmarus (see WALRUS, ATLANTIC)
Oncorhynchus clarki (see TROUT, CUTTHROAT)
gorbuscha (see SALMON, PINK)
keta (see SALMON, CHUM)
kisutch (see SALMON, COHO)
mykiss (see TROUT, RAINBOW) (see also TROUT, STEELHEAD)
nerka (see SALMON, SOCKEYE) (see also KOKANEE)
 spp. (see SALMON (Pacific in general))
tshawytscha (see SALMON, CHINOOK)
 ONTARIO (PROVINCE), CANADA
 J 47(1) : 55 (pollution effects, acid rain, models, lakes)
 : 174 (reproductive behavior, males, pink salmon, Carp R.)
 (2) : 395 (vertical migrations, zooplankton, *Daphnia galeata mendotae*, L. George)
 : 410 (acidification, buffers, lakes)
 : 412 (water chemistry, buffers, Bowland L.)
 : 422 (phytoplankton, acidification, buffers, lakes)

- : 432 (acidification, buffers, aquatic plants, algae, Bowland L.)
 - : 440 (acidification, buffers, zoobenthos, stocking, lake trout, Bowland L.)
 - : 446 (acidification, buffers, reproduction, lake trout, yellow perch, Bowland L.)
 - (3) : 495 (food, feeding, plankton, lakes)
 - : 572 (radioactive pollutants, sediments, L. St. Clair)
 - (4) : 687 (limnology, light, lakes)
 - : 789 (food, feeding, bluegill, invertebrates, L. Opinicon)
 - (6) : 1085 (acidification, biomass, algae, lakes)
 - (7) : 1269 (sedimentation, retention, elements, Blue Chalk L.)
 - : 1378 (pollution effects, acidification, phytoplankton, lakes)
 - : 1387 (pollution effects, insecticides, food availability, brook trout, Icwater Creek)
 - (9) : 1803 (homing behavior, spawning, muskellunge, Stony L.)
 - : 1813 (production, measurement, bacteria, rivers)
 - (10) : 2010 (fecundity, enzyme heterozygosity, brook trout, Mykiss L., Algonquin Park)
 - : 2030 (bioaccumulation, PCBs, food chains, freshwater fishes, lake trout)
 - (11) : 2147 (intrabiome distribution, seasonal variations, invertebrates, lakes)
 - : 2261 (acidification, river discharge, seasonal variations, invertebrates, Plastic L.)
 - TF 1634 (abstracts, DFO, Great Lakes Lab.)
 - EC 55 (market research, distribution, fishery products, Pacific salmon)
- Ophiodon elongatus* (see LINGCOD)
- Opsanus beta* (see TOADFISH)
- OREGON STATE, USA
- J 47(4) : 805 (distribution, abundance, echo surveys, aquatic plants, Devils L.)
 - (6) : 1103 (environmental impact, forest industry, debris flow, invertebrates, rivers)
 - (11) : 2085 (fishing vessels, trawlers, capacity utilization)
- Osmerus mordax* (see SMELT, RAINBOW)
- OYSTER, PACIFIC (*Crassostrea gigas*)
- J 47(6) : 1213 (gametogenesis, polyploids)
- P
- Pagophilus groenlandicus* (see SEAL, HARP)
- Pandalopsis dispar* (see SHRIMP, SIDESTRIPE)
- Pandalus borealis* (see SHRIMP, NORTHERN PINK)
- montagui* (see SHRIMP, STRIPED PINK)
- spp. (see SHRIMPS)
- Panulirus cygnus* (see LOBSTER, WESTERN ROCK)
- Paralithodes camtschatica* (see CRAB, RED KING)
- (Alaska king crab)
- Paramecium caudatum* (see PROTOZOA)
- Patinopecten yessoensis* (see SCALLOP, JAPANESE)
- PCBs (see POLYCHLORINATED BIPHENYLS; see also POLLUTION)
- Pecten* spp. (see SCALLOPS)
- yessoensis* (see SCALLOP, JAPANESE)
- Penaeus orientalis* (see PRAWN, KOREAN)
- spp. (see SHRIMPS)
- Perca flavescens* (see PERCH, YELLOW)
- PERCH, WHITE (*Morone americana*)
- J 47(9) : 1779 (competition, feeding behavior, growth, yellow perch, L. Erie)
- PERCH, YELLOW (*Perca flavescens*)
- J 47(2) : 446 (acidification, buffers, reproduction, Bowland L., Ont.)
 - (3) : 554 (metabolism, food, feeding, models)
 - (5) : 882 (feeding behavior, prey selection)
 - : 921 (reproductive strategy, food, mortality)
 - (9) : 1779 (competition, feeding behavior, growth, white perch, L. Erie)
 - (10) : 1959 (spawning behavior, spawning grounds, homing behavior, Lochaber L., N.S.)
- PERIPHYTON
- J 47(3) : 656 (sampling, methodology)
 - (8) : 1545 (nitrogen fixation, fertilizers, lakes, N.W.T.)
 - (12) : 2307 (production, predation, club elimia, creek chub, Ish Creek, TN)
- Petromyzon marinus* (see LAMPREY, SEA)
- Phoca groenlandica* (see SEAL, HARP)
- hispidia* (see SEAL, RINGED)
- vitulina* (see SEAL, HARBOR)
- Phocoena phocoena* (see PORPOISE, HARBOR)
- PHOCASCARIS PHOCAE (Nematoda)
- B 222 : 27 (environmental effects, water temperature, hatching)
 - TS 5507 (new genus, new species, parasites, harp seal, White Sea)

PHYSIOLOGY AND BIOCHEMISTRY

- J 47(3) : 554 (metabolism, food, feeding, models, yellow perch)
- (4) : 739 (lipoproteins, starvation, striped bass)
- : 813 (smolting, seasonal variations, Atlantic salmon, Western Arm Brook, Nfld., South R., N.S.)
- : 831 (metabolism, carcinogens, toadfish)
- (5) : 873 (metabolism, lake sturgeon)
- : 1043 (transparency, defence mechanisms, predation, phantom midge)
- (6) : 1136 (physiology, osmoregulation, migrations, smolts, Atlantic salmon, Freshwater R., Nfld.)
- : 1223 (fats, mathematical analysis, ringed seal, harp seal, grey seal)
- (7) : 1292 (metabolism, growth regulators, water temperature, rainbow trout)
- : 1302 (respiration, gills, oxygen demand, marine molluscs, NE Pac.)
- (8) : 1495 (ultrastructure, ovaries, membranes, roes, Pacific herring, NE Pac.)
- : 1505 (vitellogenesis, ovaries, Pacific herring, NE Pac.)
- : 1513 (thyroid, environmental effects, water chemistry, juveniles, chinook salmon)
- : 1518 (diets, vitamin C, bioaccumulation, rainbow trout)
- : 1534 (antifreeze, blood, migrations, Atlantic herring, Gulf of St. Lawrence)
- : 1558 (precipitation, aluminum, fish gills)
- (9) : 1652 (enzyme activity, pollution effects, fenitrothion, Atlantic salmon)
- : 1664 (bioenergetics, models, habitat selection, bluegill)
- : 1672 (biopolymorphism, enzymes, Atlantic salmon)
- : 1796 (environmental factors, vertical migrations, juveniles, sockeye salmon, lakes, B.C.)
- (11) : 2172 (salinity tolerance, agonistic behavior, intraspecific relationships, juveniles, chinook salmon, Nanaimo R., B.C.)
- (12) : 2358 (salinity tolerance, largemouth bass, LA)
- : 2422 (pollution effects, acidification, buffers, Atlantic salmon, Medway R., Westfield R., N.S.)
- : 2431 (physiology, acidification, buffers, Atlantic salmon, Westfield R., N.S.)
- : 2441 (physiology, acidification, buffers, Atlantic salmon, Westfield R., N.S.)
- : 2451 (physiology, acidification, buffers, gills, Atlantic salmon, Westfield R., Medway R., N.S.)
- SP 110 (histology, reproductive tract, sexual maturity, Atlantic cod, NW Atl.)
- TF 1761 : 99 (salinity tolerance, photoperiod, aquaculture, juveniles, Atlantic salmon)
- : 119 (osmoregulation, mariculture, Arctic char)
- : 125 (osmoregulation, growth hormones, aquaculture, Atlantic salmon)
- : 169 (osmoregulation, salinity tolerance, aquaculture, Atlantic cod)
- TS 5499 (amino acids, lipids, parasitism, freshwater fishes)
- 5515 (fecundity, roe, oogenesis, Atlantic cod, Baltic Sea)
- 5517 (biology, endocrinology, migratory species)
- Pimephales promelas* (see MINNOW, FATHEAD)
- Placopecten magellanicus* (see SCALLOP, SEA) (giant scallop)
- PLAICE, AMERICAN (*Hippoglossoides platessoides*)
- TF 1761 : 91 (aquaculture, diets, Norway)
- PLANKTON
- J 46(S1) : 44 (annual variations, environmental effects, Scotian Shelf, NW Atl.)
- : 183 (phytoplankton, models, Scotian Shelf, NW Atl.)
- 47(1) : 100 (environmental effects, salinity, limnology, Great Salt L., UT)
- : 110 (zooplankton, acidification, abiotic factors, lakes, Que.)
- (2) : 262 (production, nutrients, habitat improvement, Sproat L., Vancouver I., B.C.)
- : 351 (growth, nitrogen)
- : 364 (phytoplankton, phosphorus, L. Gjersjoen, Norway)
- : 395 (zooplankton, vertical migrations, *Daphnia galeata mendotae*, L. George, Ont.)
- : 422 (phytoplankton, acidification, buffers, lakes, Ont.)
- (3) : 471 (interspecific relationships, phosphorus, mosquitofish)
- : 495 (food, feeding, *Diaptomus minutus*, *Bosmina* spp., *Diaphanosoma* sp., *Holopedium gibberum*, lakes, Ont.)
- : 505 (zooplankton, predation, competition, Pacific herring, NE Pac.)
- (4) : 725 (viruses, Sproat L., Vancouver I., B.C.)
- : 772 (acidification, environmental effects, food, feeding, zooplankton, Little Rock L., WI)
- (5) : 1047 (phytoplankton, acidification, morphometry, lakes, Que.)

- (7) : 1258 (ultraphytoplankton, growth, biofilters)
 : 1378 (phytoplankton, pollution effects, acidification, lakes, Ont.)
 : 1434 (environmental effects, environmental impact, Long Point Bay, L. Erie)
 : 1468 (phytoplankton, growth, phosphorus, nitrogen, lakes, North America)
 (9) : 1700 (chlorophylls, fluorescence, salinity, Pawcatuck R. estuary, RI)
 : 1738 (zooplankton, predation, plankton feeders, alewife, L. Michigan)
 : 1755 (zooplankton, interspecific relationships, vertical migrations, sockeye salmon, threespine stickleback, B.C.)
 : 1836 (bacterioplankton, food webs, grazing, L. Michigan)
 (10) : 1937 (zooplankton, environmental effects, alkalinity, population structure, NE USA)
 (12) : 2328 (phytoplankton, bioassays, nutrients, Flathead L., MT)
 : 2339 (phytoplankton, biological poisons, distribution, Strait of Georgia, NE Pac.)
 SP 108 : 255 (food webs, transport processes, environmental conditions, biomass) (zooplankton, dry weight, Crustacea, Rotifera, Experimental Lakes Area, NW Ont.)
 TF 1666 : 1740 (phytoplankton, photosynthesis, computer programs)
 MF 2083 : (zooplankton, sampling, Crustacea, Dauphin L., Man.)
 DF 760 : (phytoplankton, primary production, Labrador Shelf)
 779 : (ichthyoplankton surveys, population structure, food consumption, Beaufort Sea)
 784 : (phytoplankton, Labrador Shelf, Strait of Belle Isle)
 785 : (phytoplankton, Georges Bank, NW Atl.)
 803 : (zooplankton, ichthyoplankton, vertical distribution, Scotian Shelf, NW Atl.)
 DH 77 : (zooplankton, oceanographic data, Barkley Sound, Vancouver I., B.C.)
 PLECOPTERA (stoneflies)
 TF 1720 : (check lists, distribution, pollution, St. Croix R., N.B., Gold R., Medway R., N.S.)
 POLLOCK, WALLEYE (*Theragra chalcogramma*)
 SP 108 : 57 (catch statistics, age composition, analysis, Gulf of Alaska)
 : 169 (buoyancy, eggs, Shelikof Strait, Gulf of Alaska)
 : 239 (environmental effects, water currents, larvae, Shelikof Strait, Gulf of Alaska)
 : 353 (environmental effects, population number, E Bering Sea)
 POLLUTION
 J 47(1) : 55 (acid rain, models, lakes, Ont.)
 : 67 (acid rain, models, lakes, E Canada)
 : 110 (acidification, abiotic factors, zooplankton, lakes, Que.)
 (2) : 236 (acidification, survival, embryos, lake trout, Experimental Lakes Area, NW Ont.)
 : 290 (acidification, snowmelt, L. Superior, North America)
 : 410 (acidification, buffers, lakes, Ont.)
 : 412 (water chemistry, acidification, buffers, Bowland L., Ont.)
 : 422 (acidification, buffers, phytoplankton, lakes, Ont.)
 : 432 (acidification, buffers, aquatic plants, algae, Bowland L., Ont.)
 : 440 (acidification, buffers, zoobenthos, stocking, lake trout, Bowland L., Ont.)
 : 446 (acidification, buffers, reproduction, lake trout, yellow perch, Bowland L., Ont.)
 (3) : 480 (phosphorus, models, L. Washington, WA)
 : 544 (aquaculture, palatability, channel catfish)
 : 548 (mercury, models)
 : 572 (radioactive pollutants, sediments, L. St. Clair, Ont.)
 : 644 (acid rain, freshwater resources, Canada)
 (4) : 746 (PCBs, sediments, rivers, Sweden)
 : 772 (acidification, food, feeding, plankton, Little Rock L., WI)
 : 821 (acidification, fishes, Mollusca, lakes, E Canada)
 (5) : 904 (effects, copper, growth, Asian clam)
 : 1038 (heavy metals, cytotoxicity, liver, rainbow trout)
 : 1047 (acidification, phytoplankton, lakes, Que.)
 (6) : 1085 (acidification, biomass, algae, lakes, Ont.)
 : 1128 (acidification, population number, models, brook trout, lake trout, Adirondack Mts., NY)
 : 1157 (effects, insecticides, food, growth, larvae, fathead minnow)
 (7) : 1318 (acidification, population density, invertebrates, rivers, Adirondack Mts., NY)
 : 1339 (monitoring, pH, models, Chrysophyceae, lakes, CT)
 : 1378 (effects, acidification, phytoplankton, lakes, Ont.)
 : 1387 (effects, insecticides, food availability, brook trout, Icewater Creek, Ont.)

- (8) : 1558 (precipitation, aluminum, fish gills)
 : 1578 (acidification, toxicity, lakes, fry, brook trout)
 : 1580 (acidification, toxicity, fry, brook trout)
 : 1593 (acidification, toxicity, ions, fry, brook trout)
 : 1604 (acidification, toxicity, ions, fry, brook trout)
 : 1616 (acidification, toxicity, skin, fry, brook trout)
 : 1623 (acidification, fluctuating flow, toxicity, fry, brook trout)
 : 1631 (acidification, prediction, toxicity, fry, brook trout)
 : 1641 (acidification, aluminum, toxicity, brook trout)
 (9) : 1652 (effects, fenitriothion, enzyme activity, Atlantic salmon)
 : 1694 (effects, acidification, reproduction, mud amnicola)
 (10) : 1888 (monitoring, mercury, fishes, L. Hakojärvi, Finland)
 : 2030 (PCBs, food chains, bioaccumulation, freshwater fishes, lake trout, Ont.)
 : 2049 (insecticides, economic analysis, models, blackfly)
 (11) : 2123 (monitoring, chemical pollutants, indicator species, white croaker, CA)
 : 2137 (acidification, physicochemical properties, fishes, lakes, FL)
 : 2234 (arsenates, toxicity, water temperature, rainbow trout)
 : 2261 (acidification, river discharge, seasonal variations, invertebrates, Plastic L., Ont.)
 (12) : 2420 (acidification, buffers, Atlantic salmon, rivers, N.S.)
 : 2422 (acidification, buffers, reproduction, Atlantic salmon, Medway R., Westfield R., N.S.)
 : 2431 (acidification, buffers, physiology, Atlantic salmon, Westfield R., N.S.)
 : 2441 (acidification, buffers, physiology, Atlantic salmon, Westfield R., N.S.)
 : 2451 (acidification, buffers, physiology, gills, Atlantic salmon, Medway R., Westfield R., N.S.)
 B 223 (environmental effects, forest industry, ecosystems, Pacific salmon, Carnation Creek, B.C.)
 TF 1606 (organic compounds, chemical extraction, sea water, methodology)
 1650 (oil spills, American lobster, Placentia Bay, Nfld.)
 1652 (air pollution, carbon dioxide, fisheries, NW Atl.)
 1681 (ocean dumping, fishes, shellfish, World Oceans)
 1693 (marine environment, water quality, pollution maps, Halifax Harbour, N.S.)
 1704 (suspended sediment analysis, models, rivers, P.E.I.)
 1711 (acidification, freshwater lakes, Nfld.)
 1720 (effects, Plecoptera, Trichoptera, St. Croix R., N.B., Gold R., Medway R., N.S.)
 1727 (acidification, water analysis, fishes, freshwater lakes, N.B.)
 1729 (suspended matter, eggs, larvae, lingcod, Pacific herring, surf smelt, NE Pac.)
 1746 (effects, dredging, blue mussel, Bay of Chaleur, Gulf of St. Lawrence)
 1760 (aquaculture effluents, Atlantic salmon, Bay of Fundy, NW Atl.)
 1761 : 1 (effects, algal blooms, aquaculture, marine fishes, Bay of Fundy, NW Atl.)
 : 11 (aquaculture effluents, anoxic sediments, Bay of Fundy, NW Atl.)
 MF 2055F (chemical, environmental effects, St. Lawrence R.)
 TH 122 (environmental impact, benthos, invertebrates, Vancouver Harbour, B.C.)
 128 (environmental monitoring, nuclear power plants, Point Lepreau, Bay of Fundy, NW Atl.)
 DH 60(7) (hydrocarbons, sampling, methodology, Mackenzie R. delta, Beaufort Sea)
 TS 5493 (data acquisition, computer programs, Finland)
 5502 (pulp wastes, dioxins, conferences)
 EC 1F (acidification, sport fishing, fishery economics, Que.)
 14 (acidification, sport fishing, fishery economics, E Canada)
 POLYCHLORINATED BIPHENYLS (PCBs) (see also POLLUTION)
 J 47(4) : 746 (sediments, rivers, Sweden)
 (10) : 2030 (bioaccumulation, food chains, freshwater fishes, lake trout, Ont.)
 POMFRET (*Brama japonica*)
 SP 108 : 195 (migrations, feeding, spawning, N Pac.)
 POPULATION DYNAMICS
 J 46(S1) : 171 (population structure, haddock, Atlantic cod, Scotian Shelf, NW Atl.)
 47(1) : 24 (models, fishes)
 : 122 (age composition, models, females, northern fur seal, Pribilof Is., Bering Sea)
 (2) : 236 (survival, embryos, acidification, lake trout, Experimental Lakes Area, NW Ont.)
 : 274 (age, body size, growth, Pacific halibut)
 : 401 (annual variations, *Daphnia rosea*, *Holopedium gibberum*,

- lakes, B.C.)
- (3) : 524 (recruitment, bloater, L. Michigan)
- (5) : 921 (reproductive strategy, food, mortality, yellow perch)
- : 948 (sexual maturity, age, models, lingcod, NE Pac.)
- (6) : 1148 (fecundity, body size, models, quillback rockfish, copper rockfish)
- : 1185 (ovulation, spawning, fecundity, Atlantic cod)
- : 1194 (predator-prey relationships, mortality, cutthroat trout, threespine stickleback, Queen Charlotte Is., B.C.)
- (7) : 1307 (recruitment, growth, water temperature, red king crab, E Bering Sea)
- : 1330 (population density, mortality, juveniles, western rock lobster, W Australia)
- (8) : 1551 (growth, mortality, tagging, sablefish, NE Pac.)
- (9) : 1765 (mortality, population density, marine environment, coho salmon)
- : 1830 (sexual maturity, long-finned squid, N.S., Nfld.)
- (10) : 1898 (food availability, hydrography, larvae, Atlantic herring, St. Lawrence estuary)
- : 2010 (fecundity, enzyme heterozygosity, brook trout, Mykiss L., Algonquin Park, Ont.)
- : 2106 (threshold fishery management, exploitation, models)
- (11) : 2158 (growth, reproduction, annual variations, harbor porpoise, Bay of Fundy, NW Atl.)
- : 2164 (recruitment, environmental effects, winds, Arctic cisco, Prudhoe Bay, Beaufort Sea)
- : 2181 (survival, ocean growth, body size, juveniles, coho salmon, Carnation Creek, B.C.)
- (12) : 2375 (sexual maturity, prediction, methodology, females, Pacific herring)
- : 2390 (spawning, environmental effects, tidal cycles, Pacific herring, NE Pac.)
- : 2407 (abundance, environmental effects, coastal upwelling, oil sardine, India)
- SP 108 : 111 (reproduction, Japanese anchovy, Sagami Bay, Japan)
- : 153 (recruitment, environmental effects, marine fishes)
- : 207 (recruitment, environmental effects, Pacific hake, off CA)
- : 221 (recruitment, environmental effects, Pacific halibut, Gulf of Alaska)
- : 327 (recruitment, population number, environmental effects, rock sole, N Hecate Strait, B.C.)
- : 335 (recruitment, models, Korean prawn, Bohai Sea, China)
- : 353 (population number, environmental effects, walleye pollock, E Bering Sea)
- 110 : (recruitment, sexual maturity, Atlantic cod, NW Atl.)
- B 222 : 41 (hatching, environmental effects, sealworm)
- : 171 (fecundity, pups, grey seal, NW Atl.)
- : 185 (fecundity, census, pups, grey seal, NW Atl.)
- : 261 (parasitism, life cycle, models, sealworm)
- : 273 (parasitism, life cycle, models, sealworm, Scotland)
- TF 1580 : (spawning, eggs, capelin, Conception Bay, Nfld.)
- 1705 : (production, juveniles, alewife, blueback herring, Giant L., N.S.)
- 1713 : (recruitment, environmental effects, computer programs)
- 1736 : (environmental effects, limnology, sea lamprey, Great Lakes, North America)
- 1738F : (spawning, Atlantic salmon, Ungava Bay, NW Atl.)
- 1743 : (recruitment, fishery resources, N Atl.)
- 1761 : 107 (hydroelectric power plants, rearing, aquaculture, Atlantic salmon, Mactaquac, N.B.)
- MF 2019(3) : (spawning grounds, geographical distribution, Pacific herring, Upper Central Coast, B.C.)
- (4) : (spawning grounds, geographical distribution, Pacific herring, Lower Central Coast, Johnstone Strait, B.C.)
- 2041 : (mortality, Atlantic salmon, NW Atl.)
- 2072 : (spawning, seasonality, fishery surveys, Pacific cod, NE Pac.)
- TS 5494 : (sea life, juveniles, Pacific salmon, Kamchatka, USSR)
- 5503 : (recruitment, reproduction, Pacific walrus, Arctic)
- 5515 : (fecundity, roe, oogenesis, Atlantic cod, Baltic Sea)
- EC 18 : (mortality, total allowable catch, models, Canada)
- POPULATION STRUCTURE
- J 46(S1) : 171 (population dynamics, haddock, Atlantic cod, Scotian Shelf, NW Atl.)
- 47(1) : 122 (age composition, models, females, northern fur seal, Pribilof Is., Bering Sea)
- : 184 (growth, models, Pacific cod, longneck croaker, Russell's mackerel scad)
- (2) : 274 (age, body size, growth, Pacific halibut)
- : 301 (growth, age composition, models, southern bluefin tuna)
- (4) : 780 (algae, sea ice, Magdalen Is., Gulf of St. Lawrence)

- (6) : 794 (length-frequency, northern pink shrimp, Gulf of St. Lawrence)
 (6) : 1060 (spawning populations, Atlantic herring, Georges Bank, NW Atl.)
 (7) : 1364 (community composition, multivariate analysis, invertebrates, St. Lawrence R. estuary, Gulf of St. Lawrence)
 (9) : 1724 (population density, home range, juveniles, Salmonidae)
 : 1773 (amoeocytes, environmental effects, streams, sea lamprey, Great Lakes, North America)
 (10) : 1937 (environmental effects, alkalinity, zooplankton, NE USA)
 (11) : 2112 (golden crab, red crab, Gulf of Mexico)
 : 2195 (length-at-age, summer, Pacific hake, Vancouver I., B.C.)
 : 2242 (migrations, breeding, snow crab, Bonne Bay, Nfld.)
 SP 108 : 81 (Pacific hake, NE Pac.)
 : 341 (sockeye salmon, Ozernaya R., Kamchatka, USSR)
 B 222 : 289 (growth curves, models, parasites, sealworm, Atlantic cod, NW Atl.)
 TF 1719 (fishery surveys, Pacific salmon, Hecate Strait, NE Pac.)
 1747 (narwhal, Admiralty Inlet, Baffin I., N.W.T.)
 1748F (biological data, Iceland scallop, Gulf of St. Lawrence)
 MF 2038 (age composition, fishery statistics, sockeye salmon, Skeena R., B.C.)
 2066 (chinook salmon, Harrison R., B.C.)
 DF 771 (length, weight, Pacific salmon, Lower Fraser R., B.C.)
 776 (biological data, fishways, Pacific salmon, steelhead trout, Meziadin R., B.C.)
 777 (sampling distribution, Pacific herring, NE Pac.)
 779 (ichthyoplankton, Beaufort Sea)
 800 (biological data, white whale, Mackenzie R. estuary, N.W.T.)
 TS 5503 (age, sex, Pacific walrus, Arctic)
 5506 (marine mammals, N Pac.)
 5512 (spawning populations, capelin, Kamchatka, USSR)
- PORPOISE, HARBOR (*Phocoena phocoena*)
 J 47(3) : 561 (age, growth, reproduction, Bay of Fundy, NW Atl.)
 (11) : 2158 (growth, reproduction, annual variations, Bay of Fundy, NW Atl.)
- PRAWN, KOREAN (*Penaeus orientalis*)
 SP 108 : 335 (recruitment, environmental effects, models, Bohai Sea, China)
- PREDATION AND COMPETITION
 J 47(2) : 251 (predator control, interspecific relationships, models, sea lamprey, L. Superior, North America)
- (3) : 471 (interspecific relationships, phosphorus, plankton, mosquitofish)
 : 505 (zooplankton, Pacific herring, NE Pac.)
 (5) : 882 (feeding behavior, prey selection, yellow perch)
 : 977 (prey, *Daphnia*, opossum shrimp, L. Michigan)
 : 1011 (green sea urchin, algae, E Canada)
 : 1043 (predation, defense mechanisms, transparency, phantom midge)
 (6) : 1122 (toxicity, copper, predator-prey relationships, *Didinium nasutum*, *Paramecium caudatum*)
 : 1194 (predator-prey relationships, mortality, cutthroat trout, threespine stickleback, Queen Charlotte Is., B.C.)
 (7) : 1275 (predators, mortality, *Carcinonemertes epialti*, yellow rock crab, S CA)
 (9) : 1738 (predation, plankton feeders, zooplankton, alewife, L. Michigan)
 : 1779 (growth, feeding behavior, competition, white perch, yellow perch, L. Erie)
 (10) : 2057 (trophic relationships, food webs, secondary production, algae, Wilson Creek, Bernheim Forest, KY)
 (11) : 2172 (intraspecific relationships, agonistic behavior, salinity tolerance, juveniles, Nanaimo R., B.C.)
 (12) : 2278 (interspecific competition, intraspecific competition, stocking organisms, brook trout, white sucker, lakes, Que.)
 : 2297 (habitat selection, competition, controlled conditions, coho salmon, Dolly Varden, Prince of Wales I., AK)
 : 2307 (predation, production, periphyton, creek chub, club elimia, Ish Creek, TN)
 MF 2037 (predation, fish eggs, Pacific herring, Barkley Sound, Vancouver I., B.C.)
- PRINCE EDWARD ISLAND (PROVINCE), CANADA
 TF 1704 (suspended sediment analysis, models, rivers)
- PRODUCTION
 J 46(S1) : 183 (phytoplankton, models, Scotian Shelf, NW Atl.)
 47(2) : 262 (plankton, nutrients, habitat improvement, Sproat L., Vancouver I., B.C.)
 : 351 (phytoplankton, growth, nitrogen)
 : 364 (phytoplankton, phosphorus, L. Gjersjoen, Norway)
 : 373 (primary, watersheds, models, Vermilion R., IL)

- (3) : 656 (periphyton, sampling, methodology)
 (5) : 1027 (decomposers, bacteria, Hartbeespoort Dam, South Africa)
 (6) : 1085 (biomass, acidification, algae, lakes, Ont.)
 : 1166 (primary, photosynthetic pigments, sedimentation)
 (7) : 1258 (primary, phytoplankton, biofilters)
 : 1348 (primary, fine structure, sea ice, algae, Arctic)
 : 1402 (primary, inorganic nutrients, sea water, sea ice, Barrow Strait, N.W.T.)
 (9) : 1700 (chlorophylls, fluorescence, salinity, Pawcatuck R. estuary, RI)
 : 1813 (measurement, bacteria, rivers, Ont.)
 (10) : 1929 (primary, trophic state, correlation analysis, freshwater fishes)
 : 1986 (sea ice, bacteria, Frobisher Bay, Arctic)
 : 2057 (secondary, trophic relationships, food webs, algae, Wilson Creek, Bernheim Forest, KY)
 (12) : 2307 (periphyton, light effects, trophic levels, controlled conditions)
 : 2351 (primary, nutrients, measurement, radioactive tracers)
 TF 1709 (primary, trophic relationships, food webs, bacteria, Great Lakes, North America)
 DF 760 (primary, phytoplankton, Labrador Shelf)
 784 (primary, fishery surveys, Labrador Shelf, Strait of Belle Isle)
 785 (primary, Georges Bank, NW Atl.)
 798 (primary, N Sargasso Sea)
 TS 5492 (primary, environmental surveys, seeding, Yezo scallop, Pos'et Bay, Sea of Japan)
- PROTOZOA
 J 47(6) : 1122 (toxicity, copper, predator-prey relationships, *Didinium nasutum*, *Paramecium caudatum*)
 TS 5495 (toxicity tests, shellfish poisoning, *Tetrahymena pyriformis*)
 5509 (morphology, identification keys)
- Pseudoterranova decipiens* (see SEALWORM)
Pseudotolithus typus (see CROAKER, LONGNECK)
Pusa hispida (see SEAL, RINGED)
- Q
- QUEBEC (PROVINCE), CANADA
 J 47(1) : 110 (acidification, abiotic factors, checklists, zooplankton, lakes)
 (5) : 1004 (sampling, beach seines, models, fishes, lakes)
- : 1047 (phytoplankton, acidification, morphometry, lakes)
 (8) : 1537 (dissolved organic carbon, catchments, rivers, S Que.)
 (12) : 2278 (interspecific competition, intraspecific competition, stocking organisms, brook trout, white sucker, lakes)
 : 2285 (feeding behavior, spatial distribution, comparative studies, brook trout, white sucker, lakes)
 (information services, habitat, fishery management)
 TF 1744F (spawning grounds, Atlantic sturgeon, Bersimis R.)
 MF 2073F (fishery economics, acidification, sport fishing)
 EC 1F (market research, trade, American lobster)
 10F (market research, resource availability, demersal fisheries)
 20F (fishery economics, fishing vessels)
 26 (fishery economics, aquaculture, feasibility, Atlantic cod)
 27F (fishery economics, landing statistics, trade, American lobster)
 40F
- Queen Charlotte Islands (see BRITISH COLUMBIA)
- R
- Rana pipiens* (see FROG, LEOPARD)
- REDFISH, DEEPWATER (*Sebastes mentella*)
 J 47(1) : 163 (age determination, radiochemistry, otoliths)
- Renibacterium salmoninarum* (bacterial kidney disease) (see BACTERIA)
- REPRODUCTION
 J 46(S1) : 68 (environmental effects, spawning, haddock, Georges Bank, Browns Bank, NW Atl.)
 : 153 (haddock, Scotian Shelf, NW Atl.)
 47(1) : 174 (reproductive behavior, males, pink salmon, Carp R., Ont.)
 (2) : 318 (energy dissipation, migrations, lake herring, lake whitefish, James Bay, Canada)
 : 335 (reproductive patterns, energy dissipation, migrations, lake herring, lake whitefish, James Bay, Canada)
 : 446 (acidification, buffers, lake trout, yellow perch, Bowland L., Ont.)
 (3) : 520 (distribution, abundance, American lobster, Grand Manan I., NW Atl.)
 : 533 (genetics, DNA, lake herring, Hudson Bay, James Bay, Canada)
 : 561 (age, growth, harbor porpoise,

- Bay of Fundy, NW Atl.)
- (4) : 701 (environmental effects, Atlantic salmon)
- : 838 (cycles, models, sockeye salmon, Adams R., B.C.)
- (5) : 921 (reproductive strategy, food, mortality, yellow perch)
- (6) : 1185 (ovulation, spawning, fecundity, Atlantic cod)
- (9) : 1694 (pollution effects, acidification, mud amnicola)
- : 1788 (models, fishery management)
- : 1803 (homing behavior, spawning, muskellunge, Stony L., Ont.)
- (10) : 1929 (correlation analysis, trophic state, primary production, freshwater fishes)
- (11) : 2158 (sexual maturity, annual variations, harbor porpoise, Bay of Fundy, NW Atl.)
- (12) : 2402 (reproductive behavior, induced breeding, American lobster)
- : 2422 (pollution effects, acidification, Atlantic salmon, Medway R., Westfield R., N.S.)
- SP 108 : 111 (population dynamics, Japanese anchovy, Sagami Bay, Japan)
- 110 (reproductive tract, histology, sexual maturity, Atlantic cod, NW Atl.)
- B 222 : 27 (hatching, environmental effects, water temperature, Nematoda)
- : 41 (hatching, environmental effects, sealworm)
- : 171 (fecundity, pups, grey seal, NW Atl.)
- : 185 (fecundity, census, pups, grey seal, NW Atl.)
- TF 1580 (spawning, eggs, capelin, Conception Bay, Nfld.)
- 1655 (sexual maturity, manuals, Atlantic herring)
- 1723 (ovaries, histology, Pacific cod)
- 1738F (spawning, Atlantic salmon, Ungava Bay, NW Atl.)
- 1739 (spawning grounds, evaluation, lake trout, Great Lakes, North America)
- 1761 : 69 (hatching, artificial substrata, aquaculture, salmonids)
- : 107 (hydroelectric power plants, aquaculture, rearing, Atlantic salmon, Mactaquac, N.B.)
- MF 2072 (spawning, seasonality, fishery surveys, Pacific cod, NE Pac.)
- TS 5503 (Pacific walrus, Arctic)
- 5517 (migratory species)
- RESEARCH INSTITUTIONS
- AR (DFO, annual report, 1988)
- TF 1634 (DFO, abstracts, Great Lakes Lab., Ont.)
- MF 2054 (DFO, research programs, personnel, St. Andrews, N.B.)
- 2055F (research plan, chemical pollution, St. Lawrence R.)
- Rhizosolenia eriensis* (see ALGAE)
- 2516
- RHODE ISLAND STATE, USA
- J 47(9) : 1700 (chlorophylls, fluorescence, salinity, Pawcatuck R. estuary)
- ROACH (*Rutilus rutilus*)
- J 47(5) : 960 (growth, temperature effects, body size, Tjeukemeer, Netherlands)
- ROCKFISH, COPPER (*Sebastes caurinus*)
- J 47(6) : 1148 (fecundity, body size, models)
- ROCKFISH, QUILLBACK (*Sebastes maliger*)
- J 47(6) : 1148 (fecundity, body size, models)
- ROCKFISHES (*Sebastes* spp.) [Pac.] (see also names of species)
- MF 1872 (sport fishing, creel survey, catch/effort, Strait of Georgia, NE Pac.)
- 2029 (exploratory fishing, echo surveys, off Brooks Peninsula, Victoria I., B.C.)
- 2032 (sport fishing, creel survey, catch/effort, Strait of Georgia, NE Pac.)
- 2033 (sport fishing, creel survey, catch/effort, Strait of Georgia, NE Pac.)
- 2034 (sport fishing, creel survey, catch/effort, Strait of Georgia, NE Pac.)
- 2035 (sport fishing, creel survey, catch/effort, Strait of Georgia, NE Pac.)
- 2036 (sport fishing, creel survey, catch/effort, Strait of Georgia, NE Pac.)
- 2045 (cruises, sampling, fishery data, NE Pac.)
- 2046 (gillnets, NW Vancouver I., B.C.)
- 2061 (cruises, sampling, biological data, NE Pac.)
- ROCKLING, SILVER (*Gaidropsarus argentatus*)
- MF 1932 (new records, Arctic)
- ROTIFERA
- TF 1666 (zooplankton, dry weight, Experimental Lakes Area, NW Ont.)
- MF 2083 (zooplankton, sampling, Dauphin L., Man.)
- ROUGHY, ORANGE (*Hoplostethus atlanticus*)
- J 47(4) : 760 (age, growth, otoliths)
- Rutilus rutilus* (see ROACH)
- S
- SABLEFISH (*Anoplopoma fimbria*) (blackcod)
- J 47(8) : 1551 (tagging, growth, mortality, NE Pac.)
- TF 1725 (aquaculture, storage, salinity tolerance, sperm)

Salmo gairdneri (see TROUT, RAINBOW; TROUT, STEELHEAD)
salar (see SALMON, ATLANTIC)

SALMON (Pacific in general) (*Oncorhynchus* spp.)

- J 47(5) : 968 (stock identification, genetics, models)
 (6) : 1116 (catch/effort, fishing vessels, fishermen, NE Pac.)
 (7) : 1453 (fishery data, hatcheries, models, B.C.)
 (10) : 1846 (commercial fishing, fishing vessels, catch statistics, Vancouver I., B.C.)
 SP 108 : 67 (catch statistics, environmental conditions, analysis, SE AK)
 B 223 (environmental effects, forest industry, Carnation Creek, B.C.)
 TF 1690 (catch statistics, commercial fishing, historical account, B.C.)
 1700 (migrations, models, juveniles, Hecate Strait, NE Pac.)
 1719 (fishery surveys, population structure, Hecate Strait, NE Pac.)
 1731 (habitat improvement, diets, juveniles, marshes, Fraser R., B.C.)
 1733 (fishery management, escapement, approximation)
 MF 1872 (sport fishing, creel survey, catch/effort, Strait of Georgia, NE Pac.)
 2032 (sport fishing, creel survey, catch/effort, Strait of Georgia, NE Pac.)
 2033 (sport fishing, creel survey, catch/effort, Strait of Georgia, NE Pac.)
 2034 (sport fishing, creel survey, catch/effort, Strait of Georgia, NE Pac.)
 2035 (sport fishing, creel survey, catch/effort, Strait of Georgia, NE Pac.)
 2036 (sport fishing, creel survey, catch/effort, Strait of Georgia, NE Pac.)
 DF 765 (fishery surveys, historical account, fishways, Meziadin R., B.C.)
 771 (population structure, distribution, abundance, Lower Fraser R., B.C.)
 772 (watersheds, inventories, South Thompson R., B.C.)
 773 (watersheds, inventories, North Thompson R., B.C.)
 776 (fishways, biological data, Meziadin R., B.C.)
 782 (catch statistics, food fish, Indians, B.C.)
 787 (catch statistics, food fish, Indians, Fraser R., B.C.)
 804 (experimental fishing, gillnets, Skeena R., B.C.)
 805 (experimental fishing, gillnets, Skeena R., B.C.)
 TS 5494 (sea life, juveniles, Kamchatka, USSR)
 EC 53 (pricing, simulation, model, B.C.)
 54 (computer model, cost analysis, aquaculture, B.C.)
 55 (market research, distribution, fishery products, Ont.)

56

(market research, fishery products, Japan)

SALMON, ATLANTIC (*Salmo salar*)

- J 47(4) : 701 (environmental effects, reproduction)
 : 755 (growth, photoperiods, aquaculture)
 : 813 (smolting, seasonal variations, Western Arm Brook, Nfld., South R., N.S.)
 (6) : 1136 (osmoregulation, migrations, smolts, Freshwater R., Nfld.)
 (7) : 1446 (toxicity, aluminum, fluorides, juveniles)
 (9) : 1652 (enzyme activity, pollution effects, fenitrothion)
 : 1672 (population genetics, biopolymorphism, enzymes)
 (12) : 2420 (acidification, buffers, rivers, N.S.)
 : 2422 (acidification, buffers, reproduction, Medway R., Westfield R., N.S.)
 : 2431 (acidification, buffers, physiology, Westfield R., N.S.)
 : 2441 (acidification, buffers, physiology, Westfield R., N.S.)
 : 2451 (acidification, buffers, physiology, gills, Westfield R., Medway R., N.S.)
 TF 1563 (stock identification, scales, commercial fisheries, Northumberland Strait, N.S.)
 1710 (habitat improvement, spawning grounds, nursery grounds, LaHave R., N.S.)
 1715 (aquaculture, parasitism, Caligoida, Bay of Fundy, NW Atl.)
 1737 (tagging, migrations, NW Atl.)
 1738F (reproduction, spawning, Ungava Bay, NW Atl.)
 1751 (habitat, man-induced effects, environmental effects, research programs, Catamaran Brook, Miramichi R., N.B.)
 1755 (aquaculture, water quality, dissolved substances, Mersey R., N.S.)
 1760 (pollution effects, aquaculture effluents, Bay of Fundy, NW Atl.)
 1761 : 19 (aquaculture, vibriosis, vaccination, Norway)
 : 25 (aquaculture, diseases, Maritime Provinces, Nfld.)
 : 49 (aquaculture, population genetics, bioreselection, St. Andrews, N.B.)
 : 79 (aquaculture, light intensity, growth, juveniles)
 : 85 (aquaculture, parasite control, symbiosis, wrasses)
 : 91 (aquaculture, diets, Norway)
 : 99 (aquaculture, salinity tolerance, photoperiod, juveniles)
 : 107 (hydroelectric power plants,

- aquaculture, rearing, Mactaquac, N.B.)
- MF 2041 : 125 (aquaculture, osmoregulation, growth hormones)
(marine migrations, mortality, NW Atl.)
- 2059 (habitat, water quality, Sackville R., N.S.)
- 2075 (fishery data, stock assessment, North R., N.S.)
- 2077 (biological data, escapement, exploitation, Liscomb R., N.S.)
- DF 748 (sportfishing statistics, catch/effort, W Nfld., S Labrador)
- 764 (catch statistics, distribution records, juveniles, Stewiacke R., St. Mary's R., N.S.)
- 791 (catch statistics, distribution records, Mactaquac Area, Saint John R., N.B.)
- EC 54 (computer model, cost analysis, aquaculture, B.C.)
- 56 (market research, fishery products, Japan)
- 862 (growth, habitat improvement, Keogh R., B.C.)
- (9) : 1765 (population density, mortality, marine environment)
- (11) : 2181 (survival, ocean growth, body size, juveniles, Carnation Creek, B.C.)
- (12) : 2297 (habitat selection, competition, controlled conditions, Dolly Varden, Prince of Wales I., AK)
- MF 2050 (sport fishing, angling, catch/effort, Vedder-Chilliwack R., B.C.)
- 2052 (catch statistics, harvesting, escapement, Fraser R., B.C.)
- 2053 (stock assessment, tagging, escapement, Salmon R., B.C.)
- 2058 (spawning grounds, potential yield, mathematical analysis, smolts)
- 2071 (habitat improvement, spawning grounds, channels, B.C.)
- DF 775 (tagging, sterilization, NE Pac.)
- 802 (migrations, habitat, stream flow, Kloiya Creek, B.C.)
- SALMON, CHINOOK (*Oncorhynchus tshawytscha*)**
- J 47(8) : 1513 (environmental effects, water chemistry, thyroid, juveniles)
- (11) : 2079 (migrations, wetlands, juveniles, Puyallup R. estuary, WA)
- : 2092 (population genetics, stock identification, genes, Fraser R., B.C.)
- : 2172 (agonistic behavior, salinity tolerance, intraspecific relationships, juveniles, Nanaimo R., B.C.)
- : 2235 (stock identification, approximation, models)
- TF 1628 (age determination, scales, fresh water, B.C.)
- 1761 : 133 (aquaculture, growth, environmental effects, models)
- 2050 (sport fishing, angling, catch/effort, Vedder-Chilliwack R., B.C.)
- 2051 (sport fishing, angling, catch/effort, Fraser R., B.C.)
- 2065 (stock assessment, tagging, escapement, Campbell R., Quinsam R., B.C.)
- 2066 (tagging, escapement, biological data, Harrison R., B.C.)
- DF 802 (migrations, habitat, stream flow, Kloiya Creek, B.C.)
- SALMON, CHUM (*Oncorhynchus keta*)**
- J 47(11) : 2079 (migrations, wetlands, juveniles, Puyallup R. estuary, WA)
- DF 793 (fishery surveys, spawning populations, spawning grounds, Nekite R., B.C.)
- SALMON, COHO (*Oncorhynchus kisutch*)**
- J 47(3) : 566 (behavior, genetics)
- (5) : 852 (habitat, rootwads, Kloiya Creek, B.C.)
- SALMON, PINK (*Oncorhynchus gorbuscha*)**
- J 47(1) : 136 (limnology, nutrients, transport, Sashin Creek, AK)
- : 174 (reproductive behavior, males, Carp R., Ont.)
- SP 108 : 161 (abundance, migrations, environmental effects, juveniles, Kamchatka R., USSR)
- SALMON, SOCKEYE (*Oncorhynchus nerka*)**
- J 47(1) : 145 (fishery management, harvesting, models, Fraser R., B.C.)
- (4) : 838 (reproduction, cycles, models, Adams R., B.C.)
- (9) : 1755 (interspecific relationships, vertical migrations, zooplankton, plankton feeders, B.C.)
- : 1796 (vertical migrations, environmental factors, juveniles, lakes, B.C.)
- (11) : 2250 (population genetics, developmental stages, sympatric populations, hybrids)
- (12) : 2380 (orientation behavior, migrations, helminths, Great Central L., B.C.)
- SP 108 : 137 (stock identification, scale reading, Ozernaya R., Kamchatka R., USSR)
- : 341 (distribution records, stock assessment, Ozernaya R., Kamchatka, USSR)
- MF 2038 (migrations, population structure, fishery statistics, Skeena R., B.C.)
- DF 794 (fishery surveys, escapement, stock assessment, Owikeno L., B.C.)
- 795 (fishery surveys, echo sounding, Rivers Inlet, B.C.)
- 796 (fishery surveys, fish counters, escapement, Docee R., B.C.)

SALMONIDAE

- J 47(5) : 984 (stock identification, DNA, taxonomy, *Salvelinus* spp.)
 (9) : 1684 (habitat, wood, debris, rivers, SE AK)
 : 1724 (home range, population density, juveniles)
 TF 1704 (pollution, suspended particulate matter, models, rivers, P.E.I.)
 1724 (aquaculture, effluents, environmental impact, Bay of Fundy, NW Atl.)
 1761 : 31 (aquaculture, disease detection, methodology)
 : 41 (aquaculture, genetics, natural populations, Norway)
 : 69 (aquaculture, artificial substrata, hatching, growth)
 MF 2021 (fishery surveys, streams, juveniles, SE Clayoquot Sound, Vancouver I., B.C.)
 DF 768 (catch statistics, trawling, migrations, Fraser R., B.C.)
 774 (feeding behavior, stomach content, juveniles, Campbell R., B.C.)
 781 (habitat improvement, limnology, hydrology, Fraser R. estuary, B.C.)
 TS 5510 (research programs, conferences, USSR)
 EC 21 (market research, economics, Japan)
 23 (market research, consumers, USA)
 44 (enhancement program, economics, B.C.)

Salvelinus alpinus (see CHAR, ARCTIC)
fontinalis (see TROUT, BROOK)
malma (see DOLLY VARDEN)
namaycush (see TROUT, LAKE)
 spp. (see SALMONIDAE)

SARDINE, JAPANESE (*Sardinops melanosticta*)
 SP 108 : 43 (acoustic surveys, errors, stock assessment, Hokkaido, Japan)

SARDINE, OIL (*Sardinella longiceps*)
 J 47(12) : 2407 (abundance, environmental effects, coastal upwelling, India)

Sardinella longiceps (see SARDINE, OIL)

Sardinops melanosticta (see SARDINE, JAPANESE)

SARGASSO SEA
 DF 798 (primary production, N Sargasso Sea)

SAUGER (*Stizostedion canadense*)
 J 47(6) : 1093 (biogeography, phylogenetics, DNA, North America)

SCAD, RUSSELL'S MACKEREL (*Decapterus russellii*)
 J 47(1) : 184 (growth, population structure, models)

SCALLOP, BAY (*Argopecten irradians*)
 EC 12 (market research, USA)

SCALLOP, CALICO (*Argopecten gibbus*)
 EC 12 (market research, USA)

Scallop, giant (see SCALLOP, SEA)

SCALLOP, ICELAND (*Chlamys islandica*)
 TF 1748F (distribution, biological data, Gulf of St. Lawrence)

SCALLOP, JAPANESE (*Patinopecten yessoensis*)
 (*Pecten yessoensis*) (*Mizuhopecten yessoensis*)
 (Japanese common scallop, Yezo scallop)
 SP 111 (morphology, histology, larvae, juveniles, NE Pac.)
 TS 5492 (environmental surveys, primary production, seeding, Po'set Bay, Sea of Japan)
 5501 (taxonomy, morphology, Japan)
 EC 12 (market research, Japan)

SCALLOP, SEA (*Placopecten magellanicus*) (giant scallop)
 EC 12 (market research, Canada, USA)

Scallop, Yezo (*Pecten yessoensis*) (*Mizuhopecten yessoensis*) (see SCALLOP, JAPANESE)

SCALLOPS (*Pecten* spp.)
 TS 5519 (toxicity tests, biological poisons, methodology)

SCALLOPS (see also MOLLUSCA) (also names of species)
 MF 2031 (scallop fisheries, aquaculture, bibliographies, World Waters)
 EC 12 (market research, economics, Canada, USA, Japan)

Scomber japonicus (see MACKEREL, CHUB)
scombrus (see MACKEREL, ATLANTIC)

Scophthalmus maximus (see TURBOT)

SCOTIA-FUNDY REGION, NORTHWEST ATLANTIC OCEAN
 TF 1691 (fishery management, trawl nets)
 DH 84 (water temperature, monitoring)
 EC 48 (fishery industry, fishery statistics, sociological aspects)
 72 (fishing vessel statistics, fishing effort)

SCOTIAN SHELF, NORTHWEST ATLANTIC OCEAN
 J 46(S1) : 2 (research programs, fishery management, Atlantic cod, haddock)
 : 21 (physical oceanography, particle drift, models)
 : 44 (environmental effects, annual variations, plankton)
 : 82 (vertical distribution, environmental effects, eggs, larvae, haddock)
 : 103 (distribution, abundance, eggs, larvae, haddock, Atlantic cod)
 : 113 (age, growth, larvae, Atlantic cod)
 : 125 (body conditions, environmental

- effects, larvae, haddock)
 : 134 (distribution, abundance, demersal fishes)
 : 153 (reproduction, haddock)
 : 171 (population dynamics, population structure, haddock, Atlantic cod)
 : 183 (phytoplankton, models) (stereophotography, ocean floor)
 TF 1726 : (zooplankton, ichthyoplankton, vertical distribution)
 DF 803
- SCOTLAND
 B 222 : 243 (feeding behavior, food, grey seal, Isle of May, Orkney)
 : 273 (parasitism, life cycle, models, sealworm)
- SEA CUCUMBER, JAPANESE COMMON (*Stichopus japonicus*) ("nanamako")
 TS 5500 (morphology, ecology, Japan)
- SEA RAVEN (*Hemitripterus americanus*)
 J 47(4) : 693 (parasites, sealworm)
- SEAL, BEARDED (*Erignathus barbatus*)
 J 47(6) : 1071 (distribution, abundance, habitat, Penny Strait, N.W.T.)
- SEAL, GREY (*Halichoerus grypus*) (gray seal)
 J 47(6) : 1223 (fats, mathematical analysis)
 B 222 : 27 (parasites, environmental effects, hatching, Nematoda)
 : 147 (parasitism, seasonal variations, abundance, sealworm, Sable I., N.S.)
 : 171 (fecundity, pups, NW Atl.)
 : 185 (census, fecundity, pups, NW Atl.)
 : 199 (migrations, distribution, seasonal variations, NW Atl.)
 : 215 (feeding behavior, food, seasonal variations, NW Atl.)
 : 227 (feeding behavior, food, summer, Anticosti I., Gulf of St. Lawrence)
 : 243 (feeding behavior, food, Isle of May, Orkney, Scotland)
- SEAL, HARBOR (*Phoca vitulina*)
 J 47(5) : 992 (abundance, NE Pac.)
 TF 1730 (feeding, scats, Strait of Georgia, NE Pac.)
- SEAL, HARP (*Pagophilus groenlandicus*) (*Phoca groenlandica*)
 J 47(6) : 1223 (fats, mathematical analysis)
 B 222 : 27 (parasites, environmental effects, hatching, Nematoda)
 TS 5507 (parasites, new genus, new species, *Phocascaris phocae*, White Sea)
- SEAL, NORTHERN FUR (*Callorhinus ursinus*)
 J 47(1) : 122 (age composition, population structure, models, females, Pribilof Is., Bering Sea)
- SEAL, RINGED (*Phoca hispida*) (*Pusa hispida*)
 J 47(2) : 244 (census, population density, Barrow Strait, N.W.T.)
 (6) : 1223 (fats, mathematical analysis)
- SEALWORM (*Pseudoterranova decipiens*)
 J 47(4) : 693 (parasites, brook trout, Atlantic cod, sea raven)
 (12) : 2293 (experimental infection, rainbow trout)
 B 222 : 111 (population biology, interspecific relationships, hosts)
 : 1 (parasites, historical account, NW Atl.)
 : 27 (environmental effects, water temperature, hatching)
 : 41 (water temperature, salinity, hatching)
 : 47 (parasites, larvae, invertebrates, Halifax, N.S.)
 : 67 (parasites, muscles, geographic distribution, Atlantic cod, Nfld., Labrador)
 : 83 (parasites, larvae, hosts, Sable I., N.S.)
 : 119 (parasites, abundance, rainbow smelt, Gulf of St. Lawrence)
 : 129 (parasites, hosts, rainbow smelt, Elbe Estuary, FRG)
 : 147 (parasites, seasonal variations, abundance, grey seal, Sable I., N.S.)
 : 261 (parasitism, life cycle, models)
 : 273 (parasitism, life cycle, models, Scotland)
 : 289 (parasites, growth curves, models, Atlantic cod, NW Atl.)
 TF 1734 (parasites, annual variations, seasonal variations, rainbow smelt, Gulf of St. Lawrence)
- Sebastes caurinus* (see ROCKFISH, COPPER)
maliger (see ROCKFISH, QUILLBACK)
mentella (see REDFISH, DEEPWATER)
 spp. (see ROCKFISHES [Pac.]
- Semotilus atromaculatus* (see CHUB, CREEK)
- SHAD, AMERICAN (*Alosa sapidissima*)
 J 47(8) : 1570 (stock identification, mathematical analysis, comparative studies)
- SHELLFISH (see also names of species)
 TF 1681 (ocean dumping, pollution effects, World Oceans)
 TS 5495 (shellfish poisoning, toxicity tests, *Tetrahymena pyriformis*)
- SHRIMP, NORTHERN PINK (*Pandalus borealis*)
 J 47(4) : 794 (population structure, migrations, Gulf of St. Lawrence)
 (8) : 1526 (distribution, growth, hydrography, Gulf of St. Lawrence)

- (9) : 1710 (stock assessment, distribution, environmental effects, E Arctic)
- (11) : 2068 (geographical distribution, hydrography, larvae, Gulf of St. Lawrence)
- EC 7 (market research, Canada)
- SHRIMP, OPOSSUM (*Mysis relicta*)
- J 47(5) : 977 (abundance, predators, *Daphnia*, L. Michigan)
- SHRIMP, SIDESTRIPE (*Pandalopsis dispar*)
- MF 1582 (stock assessment, Queen Charlotte Is., B.C.)
- SHRIMP, STRIPED PINK (*Pandalus montagui*)
- J 47(9) : 1710 (stock assessment, distribution, environmental effects, E Arctic)
- SHRIMPS (see also CRUSTACEA; also names of species)
- J 47(1) : 180 (aquaculture, respiration, ponds, models, *Penaeus*, Oahu, HI)
- TS 5514 (economic analysis, fishery industry plants, Norway)
- EC 61 (market research, cultured shrimp, natural shrimp, *Pandalus*, Canada)
- Simulium venustum* (see BLACKFLY)
- SMELT, RAINBOW (*Osmerus mordax*)
- B 222 : 119 (parasitism, abundance, sealworm, Gulf of St. Lawrence)
- : 129 (hosts, parasites, sealworm, Elbe Estuary, FRG)
- TF 1668 (fishery statistics, Gulf of St. Lawrence)
- 1734 (annual variations, seasonal variations, parasites, sealworm, Gulf of St. Lawrence)
- MF 2057F (habitat improvement, spawning, Boyer R., St. Lawrence R. estuary)
- SMELT, SURF (*Hypomesus pretiosus*)
- TF 1729 (environmental impact, suspended matter, eggs, larvae, NE Pac.)
- SNAKEBLENNY (*Lumpenus lumpretaeformis*)
- MF 1932 (new records, Arctic)
- SNAPPERS (*Lutjanidae*)
- J 47(4) : 696 (fisheries, gear selectivity, Marianas Is., SW Pac.)
- SOLE, ROCK (*Lepidopsetta bilineata*)
- SP 108 : 327 (environmental effects, recruitment, N Hecate Strait, B.C.)
- SOUTH CAROLINA STATE, USA
- J 47(10) : 1913 (feeding behavior, local movements, indicator species, Copepoda, spot, North Inlet estuary)
- SOUTH CHINA SEA
- SP 108 : 121 (stock assessment, models, errors, fishes)
- SOUTHWEST PACIFIC OCEAN
- J 47(4) : 696 (fisheries, gear selectivity, snappers, Marianas Is.)
- Species, new (see NEW SPECIES)
- SPORT FISHING
- TF 1721 (fishery surveys, bait, Pacific herring, Johnstone Strait, Strait of Georgia, NE Pac.)
- MF 1872 (creel survey, catch/effort, Strait of Georgia, NE Pac.)
- 2032 (creel survey, catch/effort, demersal species, Pacific salmon, Strait of Georgia, NE Pac.)
- 2033 (creel survey, catch/effort, demersal species, Pacific salmon, Strait of Georgia, NE Pac.)
- 2034 (creel survey, catch/effort, demersal species, Pacific salmon, Strait of Georgia, NE Pac.)
- 2035 (creel survey, catch/effort, demersal species, Pacific salmon, Strait of Georgia, NE Pac.)
- 2036 (creel survey, catch/effort, demersal species, Pacific salmon, Strait of Georgia, NE Pac.)
- 2042 (mail surveys, B.C.)
- 2050 (angling, catch/effort, coho salmon, chinook salmon, Vedder-Chilliwack R., B.C.)
- 2051 (angling, catch/effort, chinook salmon, Fraser R., B.C.)
- DF 748 (catch/effort, Atlantic salmon, W Nfld., S Labrador)
- 769 (catch statistics, Arctic char, Victoria I., N.W.T.)
- EC 1F (fishery economics, pollution effects, acidification, Que.)
- 14 (economics, acidification, E Canada)
- 35 (economics, industries, Canada)
- SPOT (*Leiostomus xanthurus*)
- J 47(10) : 1913 (feeding behavior, local movements, indicator species, Copepoda, North Inlet estuary, SC)
- Squalus acanthias* (see DOGFISH, SPINY)
- SQUID, LONG-FINNED (*Loligo pealei*)
- J 47(9) : 1830 (new records, biological data, N.S., Nfld.)
- SQUID, SHORT-FINNED (*Illex illecebrosus*)
- J 47(9) : 1830 (interspecific relationships, long-finned squid, N.S., Nfld.)
- ST. LAWRENCE, GULF OF
- J 47(4) : 780 (population structure, sea ice, algae, Magdalen Is.)
- : 794 (population structure, migrations, northern pink shrimp)
- (7) : 1364 (community composition, multivariate analysis,

- invertebrates)
 (8) : 1526 (distribution, growth, hydrography, northern pink shrimp)
 : 1534 (antifreeze, blood, migrations, Atlantic herring)
 (9) : 1678 (catchability, ice zone, Atlantic cod)
 (11) : 2068 (geographical distribution, hydrography, larvae, northern pink shrimp)
 : 2212 (growth, aging, otoliths, juveniles, Atlantic mackerel) (chemical oceanographic data)
 B 220F : 119 (parasites, abundance, sealworm, rainbow smelt)
 222 : 227 (feeding behavior, food, grey seal, Anticosti I.)
 TF 1660 (catch statistics, index fishermen)
 1668 (fishery statistics, rainbow smelt)
 1734 (parasites, annual variations, seasonal variations, sealworm, rainbow smelt)
 1746 (pollution effects, dredging, blue mussel, Bay of Chaleur)
 1748F (distribution, biological data, Iceland scallop)
 1754F (environmental effects, man-induced effects, habitat improvement, Orleans I.)
 MF 2082 (cruises, standards, fishery surveys, demersal fisheries)
 IF 202F (fishery economics, seining, Atlantic mackerel, S Gulf of St. Lawrence)
 TH 120 (current meter data)
 126 (physical oceanographic data)
 DH 84 (water temperature, monitoring)
- ST. LAWRENCE RIVER; ST. LAWRENCE RIVER ESTUARY
 J 47(7) : 1364 (community composition, multivariate analysis, invertebrates)
 (10) : 1898 (population dynamics, food availability, hydrography, larvae, Atlantic herring)
 TF 1752 (fishery surveys, indicator species, degradation)
 1757F (distribution, seasonal variations, historical account, white whale, St. Lawrence R. estuary, Saguenay fjord)
 MF 2055F (chemical pollution, environmental effects)
 2057F (habitat improvement, spawning, rainbow smelt, Boyer R., St. Lawrence R. estuary)
 TH 120 (current meter data, St. Lawrence R. estuary)
- Stichopus japonicus* (see SEA CUCUMBER, JAPANESE COMMON)
- STICKLEBACK, THREESPIKE (*Gasterosteus aculeatus*)
 J 47(6) : 1194 (predator-prey relationships, mortality, cutthroat trout, Queen Charlotte Is., B.C.)
 (9) : 1755 (interspecific relationships, vertical migrations, plankton feeders, zooplankton, B.C.)
- Stizostedion canadense* (see SAUGER)
lucioperca (see ZANDER)
vitreum vitreum (see WALLEYE)
- Stoneflies (see PLECOPTERA)
- Strongylocentrotus droebachiensis* (see URCHIN, GREEN SEA)
- STURGEON, ATLANTIC (*Acipenser oxyrinchus*)
 MF 2073F (habitat, spawning grounds, Bersimis R., Que.)
- STURGEON, LAKE (*Acipenser fulvescens*)
 J 47(5) : 873 (metabolism)
- STURGEONS (*Acipenser* spp.)
 DF 787 (catch statistics, food fish, Indians, Fraser R., B.C.)
- SUCKER, WHITE (*Catostomus commersoni*)
 J 47(1) : 41 (detritus, food, juveniles, MI)
 : 49 (detritus, nutritive value, juveniles)
 (12) : 2278 (interspecific competition, intraspecific competition, stocking organisms, brook trout, lakes, Que.)
 : 2285 (feeding behavior, spatial distribution, comparative studies, brook trout, Que.)
- SUPERIOR, LAKE, NORTH AMERICA
 J 47(2) : 251 (predator control, interspecific relationships, models, sea lamprey)
 : 290 (acidification, snowmelt)
- SWEDEN
 J 47(4) : 746 (PCBs, sediments, rivers)
- T
- TENNESSEE STATE, USA
 J 47(12) : 2307 (predation, production, periphyton, club elimia, creek chub, Ish Creek)
- TETRAHYMENA PYRIFORMIS (Protozoa)
 TS 5495 (toxicity tests, shellfish poisoning)
- Theragra chalcogramma* (see POLLOCK, WALLEYE)
- Thunnus maccoyii* (see TUNA, SOUTHERN BLUEFIN)
thyngus (see TUNA, BLUEFIN)
- Thymallus arcticus* (see GRAYLING, ARCTIC)
- TOAD, AMERICAN (*Bufo americanus*)
 J 47(1) : 217 (aluminum, pH, toxicity)
- TOADFISH (*Opsanus beta*)
 J 47(4) : 831 (metabolism, carcinogens,

- environmental effects)
- TOXICITY**
- J 47(1) : 210 (aluminum, bioaccumulation, leopard frog)
- : 217 (aluminum, pH, leopard frog, American toad)
- (5) : 1038 (cytotoxicity, heavy metals, liver, rainbow trout)
- (6) : 1122 (copper, predator-prey relationships, *Didinium nasutum*, *Paramecium caudatum*)
- (7) : 1446 (aluminum, fluorides, juveniles, Atlantic salmon)
- (8) : 1558 (precipitation, aluminum, fish gills)
- : 1578 (acidification, lakes, fry, brook trout)
- : 1580 (acidification, growth, fry, brook trout)
- : 1593 (acidification, ions, fry, brook trout)
- : 1604 (acidification, ions, fry, brook trout)
- : 1616 (acidification, skin, fry, brook trout)
- : 1623 (acidification, fluctuating flow, fry, brook trout)
- : 1631 (acidification, prediction, fry, brook trout)
- : 1641 (acidification, aluminum, brook trout)
- (11) : 2234 (arsenates, environmental effects, water temperature, rainbow trout)
- TF 1712 (biological poisons, marine algae, conferences, Canada)
- 1714 (aquatic environment, conferences, World Waters)
- TS 5495 (toxicity tests, shellfish poisoning, *Tetrahymena pyriformis*)
- 5519 (toxicity tests, biological poisons, methodology, scallops)
- TRICHOPTERA** (caddisflies)
- TF 1720 (check lists, distribution, pollution, St. Croix R., N.B., Gold R., Medway R., N.S.)
- TROUT, BROOK** (*Salvelinus fontinalis*)
- J 47(4) : 693 (parasites, sealworm)
- (5) : 915 (aggressiveness, feeding behavior, juveniles)
- (6) : 1065 (environmental effects, climatic warming, habitat, North America)
- : 1128 (acidification, population number, models, Adirondack Mts., NY)
- (7) : 1387 (pollution effects, insecticides, food availability, Icewater Creek, Ont.)
- (8) : 1578 (toxicity, acidification, lakes, fry)
- : 1580 (toxicity, acidification, eggs, fry)
- : 1593 (toxicity, acidification, ions, fry)
- : 1604 (toxicity, acidification, ions, fry)
- : 1616 (toxicity, acidification, skin, fry)
- : 1623 (toxicity, acidification, fluctuating flow, fry)
- : 1631 (acidification, prediction, toxicity, fry)
- : 1641 (toxicity, acidification, aluminum)
- (10) : 2010 (fecundity, enzyme heterozygosity, Mykiss L., Algonquin Park, Ont.)
- (12) : 2278 (interspecific competition, intraspecific competition, stocking organisms, white sucker, lakes, Que.)
- : 2285 (feeding behavior, spatial distribution, comparative studies, white sucker, Que.)
- TROUT, CUTTHROAT** (*Oncorhynchus clarki*)
- J 47(6) : 1194 (predator-prey relationships, mortality, threespine stickleback, Queen Charlotte Is., B.C.)
- TROUT, LAKE** (*Salvelinus namaycush*)
- J 47(2) : 236 (survival, acidification, embryos, Experimental Lakes Area, NW Ont.)
- : 440 (stocking, acidification, buffers, Bowland L., Ont.)
- : 446 (acidification, buffers, reproduction, Bowland L., Ont.)
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- (10) : 2030 (bioaccumulation, PCBs, food chains, Ont.)
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- (5) : 1038 (cytotoxicity, heavy metals, liver)
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- TF 1761 : 77 (aquaculture, feeding experiments, stocking density, growth)
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- J 47(5) : 852 (habitat, rootwads, Kloiya Creek, B.C.)

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 (10) : 1963 (horizontal movements, vertical migrations, Dean Channel, Fisher Channel, B.C.)
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- EC 30 (fishery economics, potential resources, Nfld.)
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- J 47(3) : 635 (migrations, tagging, models)

TUNA, SOUTHERN BLUEFIN (*Thunnus maccoyii*)

- J 47(2) : 301 (growth, age composition, models)

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- TF 1761 : 137 (aquaculture, diets, fry)

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- MF 1932 (new records, Arctic)

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- MF 1932 (new records, Arctic)

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- J 47(5) : 1011 (feeding behavior, predation, algae, E Canada)

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 : 161 (abundance, migrations, environmental effects, juveniles, pink salmon, Kamchatka R.)
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- TS 5503 (population structure, reproduction, Arctic)

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 (11) : 2079 (migrations, wetlands, juveniles, chum salmon, chinook salmon, Puyallup R. estuary)

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 MF 2060 (bibliographies, World Polar Seas)
 DF 800 (harvest, stock assessment, population structure, Mackenzie R. estuary, N.W.T.)

"WHALEWORM" (*Contracaecum osculatum*)

- J 47(12) : 2293 (experimental infection, rainbow trout)

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 (8) : 1484 (stock identification, subpopulations, genomes, L. Winnipeg, Man.)

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Abbreviations/Abréviations

- J - Canadian Journal of Fisheries and Aquatic Sciences/Journal canadien des sciences et aquatiques
- SP - Canadian Special Publication of Fisheries and Aquatic Sciences/Publication spéciale canadienne des sciences halieutiques et aquatiques
- B - Canadian Bulletin of Fisheries and Aquatic Sciences/Bulletin canadien des sciences halieutiques et aquatiques
- AR - Annual Report/Rapport annuel
- TF - Canadian Technical Report of Fisheries and Aquatic Sciences/Rapport technique canadien des sciences halieutiques et aquatiques
- MF - Canadian Manuscript Report of Fisheries and Aquatic Sciences/Rapport manuscrit canadien des sciences halieutiques et aquatiques
- DF - Canadian Data Report of Fisheries and Aquatic Sciences/Rapport statistique canadien des sciences halieutiques et aquatiques
- IF - Canadian Industry Report of Fisheries and Aquatic Sciences/Rapport canadien à l'industrie sur les sciences halieutiques et aquatiques
- TH - Canadian Technical Report of Hydrography and Ocean Sciences/Rapport technique canadien sur l'hydrographie et les sciences océaniques
- DH - Canadian Data Report of Hydrography and Ocean Sciences/Rapport statistique canadien sur l'hydrographie et les sciences océaniques
- CH - Canadian Contractor Report of Hydrography and Ocean Sciences/Rapport canadien des entrepreneurs sur l'hydrographie et les sciences océaniques
- TS - Canadian Translation of Fisheries and Aquatic Sciences/Traduction canadienne des sciences halieutiques et aquatiques
- EC - Economic and Commercial Analysis Report/Rapport de l'analyse économique et commerciale
- R - Reprinted/réimprimé
- Rev. - Revised/révisé
- F - French/français

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 France, R. L. - J 47(6) : 1085
 Francis, R. C. - SP 108 : 51
 Frank, K. T. - J 46(S1) : 2
 - : 55
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 - : 82
 - : 113
 - : 125
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 - TF 1652
 Fréchet, A. - J 47(9) : 1678
 Fréchette, M. - TF 1746F
 Freda, J. - J 47(1) : 210
 - : 217
 Freeland, H. J. - J 47(2) : 346
 - SP 108 : 255
 Freeman, H. C. - J 47(12) : 2422
 - : 2441
 Friars, G. W. - TF 1761 : 49
 Friesen, M. K. - MF 2081
 - 2083
 - DF 789
 Froehlich, H. A. - J 47(6) : 1103
 Frost, B. - TF 1726
 Frost, T. M. - J 47(4) : 772
 Furukawa, A. - TS 5519

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Gagné, J. A. - J 47(10) : 1898
 Gallucci, V. F. - J 47(1) : 184
 Garnick, E. - J 47(12) : 2380
 Garton, D. W. - J 47(4) : 731
 Gaskin, D. E. - J 47(11) : 2158
 Gaugush, R. F. - J 47(1) : 156
 Gauldie, R. W. - J 47(4) : 760
 Gearing, J. - MF 2055F

Gee, P. A. - DF 782
 Gensemer, R. W. - J 47(5) : 977
 Giguère, L. A. - J 47(5) : 1043
 Giguère, M. - TF 1748F
 Gile, S. R. - J 47(4) : 719
 Gill, K. A. - J 47(4) : 831
 Gillespie, G. E. - MF 1872
 - 2045
 - 2061
 - DF 783
 Gillis, D. J. - J 47(8) : 1495
 - : 1505
 Gislason, G. - EC 23
 Glebe, B. D. - TF 1761 : 119
 Goering, J. J. - J 47(1) : 136
 Goldman, C. R. - J 47(7) : 1468
 Goltsev, V. N. - TS 5503
 Gomulkiewicz, R. - J 47(3) : 611
 Goruk, R. D. - DF 793
 - 794
 - 796
 Grant, J. W. A. - J 47(5) : 915
 - (9) : 1724
 Gray, I. M. - J 47(2) : 432
 Gray, R. W. - J 47(4) : 701
 - TF 1563
 - 1710
 Green, J. M. - J 47(6) : 1136
 Greendale, R. - TF 1754F
 Grégoire, F. - IF 202F
 Gregory, D. N. - TH 120
 - DH 84
 Grewe, P. M. - J 47(5) : 984
 Griffith, J. S. - J 47(1) : 199
 Griffiths, R. W. - J 47(2) : 440
 Griffiths, W. B. - J 47(11) : 2164
 Groot, E. P. - TF 1725
 GTA Fisheries Consultants - EC 29

- Guarino, A. M. - J 47(3) : 544
- (4) : 766
- Gubala, C. P. - J 47(9) : 1821
- Guhl, W. - TS 5509
- Guildford, S. J. - DF 726
- 729
- Guise, K. S. - J 47(8) : 1562
- Gulley, D. D. - J 47(8) : 1580
- : 1616
- : 1631
- : 1641
- Gunn, J. M. - J 47(2) : 446
- Guoxiong, C. - TF 1718
- Gur'yanova, S. D. - TS 5499
- Gyselman, E. C. - DF 790
- H
- Haegele, C. W. - MF 2037
- 2056
- Haigh, R. - J 47(12) : 2339
- Haines, T. A. - J 47(12) : 2451
- Haist, V. - MF 2049
- Hall, J. - CH 33
- Hall, R. J. - J 47(11) : 2261
- Halliday, R. G. - TF 1691
- Hambrook, M. - J 47(4) : 701
- Hamer, J. S. - J 47(7) : 1339
- Hamer, L. - MF 2030
- DF 777
- Hamilton, J. G. - J 47(2) : 446
- Hammill, M. O. - J 47(2) : 244
- MF 2060
- Hammond, P. S. - B 222 : 243
- Hampton, I. - J 47(7) : 1282
- Hampton, J. - J 47(2) : 301
- Hand, C. M. - J 47(5) : 948
- MF 2029
- 2043
- 2046
- Hanna, M. - J 47(5) : 940
- Hanna, S. S. - J 47(11) : 2085
- Hansen, P. K. - TF 1761 : 7
- Hansen, T. - TF 1761 : 69
- : 79
- Hara, I. - SP 108 : 43
- Harada, K. - TS 5518
- Harboe, T. - TF 1761 : 153
- Hare, G. M. - B 222 : 119
- Harland, R. C. - J 47(10) : 1986
- Harris, L. R. - J 47(7) : 1348
- : 1402
- Harrison, P. J. - J 47(1) : 128
- Harrison, W. G. - J 47(7) : 1348
- : 1402
- Hartman, G. F. - B 223
- Harvey, B. C. - J 47(12) : 2307
- Harvey, H. H. - J 47(9) : 1788
- Harvey, H. R. - J 47(4) : 739
- Haugan, D. - DF 765
- Hay, D. E. - J 47(8) : 1495
- : 1505
- (12) : 2390
- MF 2019(2)
- (3)
- (4)
- 2025
- 2040
- Hayes, D. B. - J 47(5) : 921
- Haymes, G. T. - J 47(7) : 1427
- : 1434
- Healey, M. C. - J 47(6) : 1116
- (10) : 1846
- TF 1700
- 1719
- Hebert, P. D. N. - J 47(5) : 984
- (6) : 1093
- Hébert, S. - TF 1754F
- Hecky, R. E. - BF 726
- 729
- Heil, C. A. - J 47(9) : 1700
- Heintsch, L. - J 47(2) : 422

- Henderson, M. A. - MF 2038
- Hentschel, B. T. - J 47(10) : 1913
- Herman, A. W. - J 47(7) : 1348
- Hickey, B. M. - SP 108 : 265
- Hilborn, R. - J 47(3) : 635
- Hill, W. R. - J 47(12) : 2307
- Himmelman, J. H. - J 47(5) : 1011
- Himmer, S. - DF 729
- Hino, A. - TS 5496
- Hirano, T. - TS 5517
- Hirose, K. - SP 108 : 111
- Hjeltnes, B. - TF 1761 : 19
- Hockett, J. R. - J 47(8) : 1631
- : 1641
- Hodgson, C. A. - MF 2031
- Hodgson, M. - DF 798
- Hodson, P. - MF 2055F
- Hoenig, J. M. - TF 1713
- Hoffnagle, T. L. - J 47(8) : 1513
- Hogans, W. E. - TF 1715
- Holley, J. H. - J 47(3) : 544
- Hollowed, A. B. - SP 108 : 51
- : 207
- Holm, J. C. - TF 1761 : 77
- Holtby, L. B. - J 47(11) : 2181
- Hooper, R. G. - J 47(11) : 2242
- Hopkins, G. J. - J 47(7) : 1434
- Hopky, G. E. - DF 779
- 801
- Horne, E. - DF 760
- Horne, J. K. - B 222 : 199
- Horwitz, R. J. - J 47(10) : 1937
- Hüst, P. - TS 5507
- Houston, K. A. - TF 1736
- Howell, E. T. - J 47(6) : 1085
- Hoyt, T. - MF 1872
- Hsieh, W. W. - SP 108 : 247
- Hubley, P. D. - TF 1761 : 107
- Hudon, C. - J 47(9) : 1710
- Hudson, J. J. - J 47(9) : 1813
- Huggett, W. S. - SP 108 : 305
- Hughes, N. F. - J 47(10) : 2039
- Hunter, G. A. - DF 775
- Hunter, J. G. - MF 1932
- Hurlbut, T. - MF 2082
- Hurley, P. C. F. - J 46(51) : 44
- : 93
- : 103
- : 171
- : 183
- Huynh, H. - J 47(2) : 351
- I
- Incze, L. S. - SP 108 : 239
- Ingersoll, C. G. - J 47(8) : 1580
- : 1593
- : 1604
- : 1616
- : 1641
- Ingram, J. H. - DF 791
- Irvine, J. R. - TF 1733
- Irwin, B. - DF 760
- 784
- 785
- 798
- Iwahashi, M. - TS 5511
- J
- Jackson, D. A. - J 47(9) : 1788
- Jackson, L. J. - J 47(1) : 128
- Jackson, M. B. - J 47(2) : 432
- (6) : 1085
- Jagoe, C. H. - J 47(12) : 2451
- James, W. F. - J 47(1) : 156
- Jamieson, G. S. - SP 108 : 305
- Jansen, H. - TF 1761 : 107

- Jantz, A. L. - DF 765
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- Jantz, L. - DF 804
- Jarecka, A. - B 222 : 41
- Jefferson, E. M. J. - TF 1710
- Jensen, A. - J 47(1) : 166
- Jensen, J. O. T. - TF 1725
- Johannes, M. R. S. - J 47(2) : 395
- Johannsson, O. E. - J 47(8) : 1593
- : 1604
- Johansson, T. - DF 783
- Johnston, C. E. - J 47(4) : 701
- Johnston, N. T. - J 47(3) : 486
- (5) : 862
- Jolly, G. M. - J 47(7) : 1282
- Jones, M. L. - J 47(1) : 55
- : 67
- (4) : 821
- Jordan, W. C. - J 47(9) : 1672
- Jørstad, K. E. - TF 1761 : 41
- Joubert, G. - TF 1714
- K
- Kadowaki, R. - DF 804
- Kadowaki, R. K. - J 47(11) : 2181
- Kalff, J. - J 47(2) : 357
- Kalnín, L. W. - MF 2053
- Kao, M. H. - J 47(8) : 1534
- Karpenko, V. I. - TS 5494
- Kasian, S. E. M. - J 47(7) : 1378
- Keast, M. A. - MF 2047
- 2048
- DF 799
- Keller, A. A. - J 47(9) : 1700
- Keller, A. E. - J 47(11) : 2137
- Keller, W. - J 47(2) : 410
- : 440
- Kelso, J. R. M. - J 47(3) : 644
- (9) : 1773
- TF 1736
- 1739
- Kelso, W. E. - J 47(12) : 2358
- Kendall, A. W. Jr. - SP 108 : 169
- Kennedy, R. H. - J 47(1) : 156
- Kenney, B. C. - J 47(3) : 480
- Kiceniuk, J. W. - J 47(9) : 1652
- TF 1650
- Kieser, R. - MF 2029
- 2040
- Kim, S. - SP 108 : 169
- Kimura, D. K. - J 47(12) : 2364
- SP 108 : 57
- Kingsley, M. - MF 2055F
- Kipper, L. - TS 5498
- Kistritz, R. U. - TF 1731
- DF 781
- Kitzman, J. V. - J 47(3) : 544
- Kjesbu, O. S. - J 47(6) : 1185
- Klatt, S. - B 222 : 129
- Klaverkamp, J. F. - J 47(2) : 236
- (12) : 2431
- : 2441
- Kline, E. R. - J 47(6) : 1157
- Kline, T. C. Jr. - J 47(1) : 136
- Klut, M. E. - J 47(1) : 16
- (4) : 725
- Kobayashi, H. - TS 5519
- Koeller, P. A. - J 46(S1) : 171
- Kojima, M. - TS 5511
- Koksvik, J. I. - J 47(1) : 166
- Konkle, B. R. - J 47(4) : 789
- Konovalov, S. M. - TS 5510
- Kornfield, I. - J 47(6) : 1060

Koslow, J. A. - J 46(S1) : 44
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Kramer, D. L. - J 47(9) : 1724

Kreiberg, H. - TF 1761 : 133

Kreuzweiser, D. P. - J 47(7) : 1387

Kristofferson, A. H. - J 47(8) : 1484
 - DF 769

Kronlund, R. - MF 2019(2)
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 - (4)

Kubota, H. - TS 5496

Kuhn, B. R. - J 47(7) : 1453

Kuris, A. M. - J 47(7) : 1257

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La Point, T. W. - J 47(8) : 1580

Lacelle, J. - J 47(8) : 1526

Lachance, S. - J 47(12) : 2278
 - : 2285

Lacho, G. - DF 779

Lackner, R. - J 47(8) : 1518

Lai, H.-L. - J 47(1) : 184

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Lalonde, S. - J 47(10) : 1929

Lambert, T. C. - J 47(11) : 2212

Lambert, Y. - J 47(2) : 318
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Landry, J. G. - J 47(11) : 2212

Landry, T. - B 222 : 119
 - TF 1734

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Larsson, P. - J 47(4) : 746

Lauzier, P. - EC 20F

Lavergne, Y. - TF 1746F

Lawler, D. W. - J 47(7) : 1427

Lawrence, M. J. - MF 2047
 - 2048
 - DF 779
 - 799
 - 801

Lawrence, S. G. - TF 1666

Layton, M. - TF 1749

Le Bail, P. Y. - TF 1761 : 125

Le Roux, A. - TF 1761 : 125

Leaman, B. M. - MF 2061

Lean, D. R. S. - J 47(10) : 2030

Lear, W. H. - TF 1652
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Leavitt, P. R. - J 47(6) : 1166

LeBlanc, L. - TF 1761 : 31

LeBlond, P. H. - SP 108 : 265

Lee, E. M. - IF 201

Lee, W. G. - SP 108 : 247

Lefaiivre, D. - J 47(11) : 2068
 - TH 120

Légaré, B. - TF 1748F

Legendre, P. - J 47(7) : 1364

Legendre, V. - MF 1932

Léger, C. E. - TF 1563

Leggett, W. C. - J 47(5) : 1004

Lehman, J. T. - J 47(5) : 977

Leonard, J. D. - TF 1606

Lester, N. - J 47(2) : 432

Lévesque, S. - MF 2073F

Levings, C. D. - TF 1729
 - DF 768
 - 771
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Levy, D. A. - J 47(9) : 1755
 - : 1796

- Lewis, M. K. - DF 803
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 Lockhart, F. D. - J 47(11) : 2112
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 Løkkeborg, S. - J 47(6) : 1112
 Longard, D. A. - DF 764
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 Luecke, C. - J 47(3) : 524
 Lydersen, C. - J 47(6) : 1223
- M
- Macdonald, A. - DF 785
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 Macdonald, A. L. - DF 787
 Macdonald, J. S. - TF 1731
 - DF 774
 - 781
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 - (4) : 682
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 - : 2285
 Mahadevappa, V. G. - J 47(5) : 873
- Mahon, R. - J 46(S1) : 2
 - : 134
 Majewski, H. S. - J 47(12) : 2431
 - : 2441
 Majkowski, J. - J 47(2) : 301
 Malley, D. F. - TF 1666
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 Mamaev, Yu. L. - TS 5505
 Mangel, M. - J 47(3) : 611
 - (10) : 1875
 Mangor-Jensen, A. - TF 1761 : 153
 Mansfield, A. W. - B 222 : 163
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 - (12) : 2380
 Margraf, F. J. - J 47(9) : 1779
 Marion, M. - J 47(5) : 1038
 Markussen, N. H. - J 47(6) : 1223
 Marmorek, D. R. - J 47(1) : 55
 - : 67
 Marshall, D. E. - MF 2058
 Marshall, K. E. - TF 1749
 Marshall, R. P. - SP 108 : 67
 Marshall, T. L. - MF 2075
 Martell, D. J. - B 222 : 83
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 Martin-Robichaud, D. J. - TF 1727
 Marx, B. D. - J 47(6) : 1128
 Marzolf, E. R. - J 47(7) : 1468
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 Mathisen, O. A. - J 47(1) : 136
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 - 2046
 Mattice, J. S. - J 47(8) : 1578

- Mayhew, H. - TF 1705
- McAllister, C. D. - DF 774
- McAllister, D. E. - MF 1909
- 1932
- McAskill, J. W. - TF 1761 : 107
- McCall, P. L. - J 47(10) : 1970
- : 1996
- McCarter, B. - MF 2040
- McCarter, P. B. - MF 2019(2)
- (3)
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- 2025
- McClelland, G. - B 222 : 17
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- : 47
- : 83
- McCormick, P. V. - J 47(10) : 2057
- McCullough, D. - DH 60(7)
- McDonald, D. G. - J 47(1) : 210
- : 217
- (8) : 1593
- : 1604
- McFarlane, G. A. - J 47(4) : 672
- (8) : 1551
- (11) : 2195
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- : 27
- : 359
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- DF 778
- McGeachy, S. M. - J 47(11) : 2228
- McGie, A. M. - J 47(9) : 1765
- McGowan, D. K. - DF 811
- McGregor, I. A. - J 47(10) : 1963
- McKenna, R. F. - DH 81
- McKeown, B. A. - J 47(8) : 1495
- : 1505
- McKinnell, S. - SP 108 : 327
- McLaughlin, F. A. - DH 60(7)
- McLean, C. C. - TF 1717
- McLean, E. - TF 1717
- McNeill, A. J. - DF 764
- McQueen, D. J. - J 47(2) : 395
- McQuinn, I. H. - TF 1655
- McRuer, J. K. - J 46(51) : 82
- : 125
- Meador, M. R. - J 47(12) : 2358
- Meisner, J. D. - J 47(6) : 1065
- Méthot, G. - J 47(1) : 110
- (5) : 1047
- Metzler, G. M. - J 47(3) : 588
- Meyer, G. R. - SP 111
- Meyer, J. S. - J 47(8) : 1616
- Mezhzherin, S. V. - TS 5497
- Michaud, L. - EC 1F
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- Michaud, R. - TF 1757F
- Millar, R. B. - J 47(11) : 2235
- Miller, G. - MF 2031
- Miller, R. J. - J 47(6) : 1228
- TF 1716
- Mills, E. L. - J 47(5) : 882
- Mills, K. H. - J 47(2) : 236
- (3) : 644
- Ministère des Pêches et des Océans - SP 31R
- EC 10F
- 13F
- 26F
- 34F
- 43F
- 57F
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- Minns, C. K. - J 47(1) : 55
- : 67
- (3) : 644
- (4) : 821
- Misra, R. K. - B 222 : 83
- Mohn, R. K. - B 222 : 255
- : 261
- Mohn, L. - DF 790
- Mohr, L. C. - J 47(2) : 236
- Müller, B 222 : 129

Molot, L. A. - J 47(2) : 412
- : 422
- : 432
- : 440
- (7) : 1269

Monroe, B. P. - J 47(7) : 1434

Mooij, W. M. - J 47(5) : 960

Moore, J. E. - J 47(4) : 821

Moore, T. R. - J 47(8) : 1537

Morgan, J. D. - TF 1729

Morgan, M. J. - J 47(9) : 1652

Morisawa, M. - TS 5517

Morris, J. F. T. - J 47(10) : 1846
- TF 1719

Morrison, C. M. - SP 110

Mossman, D. - DF 760

Motavkin, P. A. - TS 5501

Mount, D. R. - J 47(8) : 1580
- : 1593
- : 1604
- : 1623
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Mudroch, A. - J 47(3) : 572

Mueller, M. E. - J 47(8) : 1641

Mulholland, P. J. - J 47(12) : 2351

Mulji, K. - DF 775

Mulligan, T. J. - J 47(7) : 1453

Mullins, C. C. - DF 748

Munawar, M. - TF 1709

Munro, J. - TF 1761 : 169

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Murakami, J. - TS 5519

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Myers, M. S. - J 47(11) : 2123

Myers, R. A. - B 222 : 67
- : 289
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Naas, K. E. - TF 1761 : 137

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Nakamura, M. - TS 5511

Nakashima, B. S. - TF 1580

Nakaya, K. - TS 5495

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Neal, P. R. - J 47(12) : 2315
- SP 108 : 127

Nédélec, H. - J 47(5) : 1011

Nelson, R. W. P. - TH 128

Nernberg, D. - DF 726

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Newsome, G. E. - J 47(10) : 1959

Nicholls, H. B. - TF 1693

Nicholls, K. H. - J 47(2) : 422

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- (7) : 1302

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Northcote, T. G. - J 47(2) : 401

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O'Dor, R. K. - J 47(9) : 1830

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Okazaki, R. K. - J 47(7) : 1275

Okla, L. - J 47(4) : 746

- Olesiuk, P. F. - J 47(5) : 992
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- Oliveira, L. - J 47(2) : 351
- Oliver, B. G. - J 47(3) : 572
- Olsen, Y. - J 47(1) : 166
- Opstad, I. - TF 1761 : 91
- Øritsland, N. A. - J 47(6) : 1223
- Osborne, L. L. - J 47(2) : 373
- Ouellet, G. - TF 1761 : 31
- Ouellet, P. - J 47(11) : 2068
- Overholtz, W. J. - J 47(2) : 385
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- Pace, M. L. - J 47(9) : 1836
- Page, F. H. - J 46(S1) : 21
- : 55
- : 68
- : 82
- : 171
- Pag , L. - TF 1746F
- Painchaud, J. - MF 2055F
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OF FISHERIES AND AQUATIC SCIENCES
JOURNAL CANADIEN
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CANADIAN DATA REPORT OF FISHERIES AND AQUATIC SCIENCES/
RAPPORT STATISTIQUE CANADIEN DES SCIENCES HALIEUTIQUES ET AQUATIQUES

Abbreviation/Abr  viation: DF

These reports provide a medium for filing and archiving data compilations where little or no analysis is included. Such compilations commonly will have been prepared in support of other journal publications or reports. The subject matter of these reports reflects the broad interests and policies of the Department of Fisheries and Oceans, namely, fisheries management, technology and development, and aquatic environments relevant to Canada.

Data reports are not intended for general distribution and the contents must not be referred to in other publications without prior written clearance from the issuing establishment. The reports are abstracted in *Aquatic sciences and fisheries abstracts* and are indexed annually in the Department's index to scientific and technical publications.

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Ces rapports servent de base    la compilation des donn  es de classement et d'archives pour lesquelles il y a peu ou pas d'analyse. Cette compilation aura d'ordinaire   t   pr  par  e pour appuyer d'autres publications ou rapports. Le sujet de ces rapports refl  te la vaste gamme des int  r  ts et politiques

du ministère des Pêches et des Océans, notamment dans les domaines de la gestion des pêches, de la technologie, du développement et des milieux aquatiques s'appliquant au Canada.

Les rapports statistiques ne sont pas préparés en vue d'une vaste distribution et leur contenu ne doit pas être mentionné dans une publication sans l'autorisation écrite préalable de l'établissement qui en est l'auteur. Les rapports sont résumés dans *Résumés des sciences aquatiques et halieutiques* (ASFA) et figurent dans l'index annuel des publications scientifiques et techniques du ministère.

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CANADIAN INDUSTRY REPORT OF FISHERIES AND AQUATIC SCIENCES/
RAPPORT CANADIEN A L'INDUSTRIE SUR LES SCIENCES HALIEUTIQUES ET AQUATIQUES

Abbreviation/Abréviation: IF

These reports contain the results of research and development that are useful to industry. The reports are directed primarily toward individuals in the primary and secondary sectors of the fishing

and marine industries. No restriction is placed on subject matter and the series reflects the broad interests and policies of the Department of Fisheries and Oceans, namely, fisheries management, technology and development, and aquatic environments relevant to Canada.

The reports are abstracted in *Aquatic sciences and fisheries abstracts* and are indexed annually in the Department's index to scientific and technical publications.

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Ces rapports contiennent les résultats des recherches et des progrès qui sont utiles à l'industrie. Ils sont préparés principalement à l'intention des membres des secteurs primaire et secondaires des industries des pêches et de la mer. Il n'y a aucune restriction quant aux sujets abordés et la collection reflète la vaste gamme des intérêts et des politiques du ministère des Pêches et des Océans, notamment dans les domaines de la gestion des pêches, de la technologie, du développement et des milieux aquatiques s'appliquant au Canada.

Les rapports sont résumés dans *Résumés des sciences aquatiques et halieutiques* (ASFA) et figurent dans l'index annuel des publications scientifiques et techniques du ministère.

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202F. Armellin, A., M. Castonguay, F. Grégoire

CANADIAN TECHNICAL REPORT OF HYDROGRAPHY AND OCEAN SCIENCES/ RAPPORT TECHNIQUE CANADIEN SUR L'HYDROGRAPHIE ET LES SCIENCES OCEANIQUES

Abbreviation/Abréviation: TH

These reports contain scientific and technical information that is of sufficient importance to be preserved but that is not appropriate for primary scientific publication. No restriction is placed on subject matter and the series reflects hydrography and chemical and physical oceanography programs of the Department of Fisheries and Oceans.

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Ces rapports contiennent des données scientifiques et techniques suffisamment importantes pour être consignées mais qui ne se prêtent pas à la publication dans un journal scientifique. Il n'y a aucune restriction quant aux sujets abordés et la collection reflète les programmes d'hydrographie ainsi que d'océanographie chimique et physique du ministère des Pêches et des Océans.

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CANADIAN DATA REPORT OF HYDROGRAPHY AND OCEAN SCIENCES/
RAPPORT STATISTIQUE CANADIEN SUR L'HYDROGRAPHIE ET LES SCIENCES OCEANIQUES

Abbreviation/Abréviation: DH

This series provides a medium for documentation, archiving, and dissemination of data compilations where little or no analysis is included. Such compilations will commonly have been prepared in support of other publications or of work related to hydrography and to chemical and physical oceanography programs of the Department of Fisheries and Oceans.

Data reports are not intended for general distribution and the contents must not be referred to in other publications without prior written authorization from the author. The reports are abstracted in *Aquatic sciences and fisheries abstracts* and are indexed annually in the Department's index to scientific and technical publications.

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Cette collection permet de recueillir, de classer et de diffuser des ensembles de données pour lesquelles il y a peu ou pas d'analyse. Ces données auront généralement été compilées pour appuyer d'autres publications ou travaux liés aux programmes d'hydrographie ainsi que d'océanographie physique et chimique du ministère des Pêches et des Océans.

Les rapports statistiques ne sont pas préparés en vue d'une vaste distribution et leur contenu ne doit pas être mentionné dans d'autres publications sans l'autorisation écrite préalable de l'auteur. Les rapports sont résumés dans *Résumés des sciences aquatiques et halieutiques* (ASFA) et figurent dans l'index annuel des publications scientifiques et techniques du ministère.

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- 5(21) Birch, J. R., D. B. Fissel, and B. D. Smiley. 1990. Arctic data compilation and appraisal. Volume 21. Queen Elizabeth Islands: Physical oceanography - temperature, salinity, currents, and water levels. Revised and updated to include 1819 through 1988. 246 p. (13)
- 60(7) Yunker, M. B., F. A. McLaughlin, B. R. Fowler, T. A. Smyth, W. J. Cretney, R. W. Macdonald, and D. McCullough. 1990. NOGAP B.6; Volume 7: Methods of hydrocarbon sample collection and analysis for hydrocarbon determinations; Mackenzie River and Beaufort Sea shoreline peat samples. 81 p. (13)
75. Fissel, D. B., A. van der Baaren, and C. L. Tang. 1989. Ice-based oceanographic, sea-ice and meteorological data obtained from the N.E. Newfoundland Shelf, 1988-1989. 165 p. (6)

77. Forbes, J. R., R. M. Brown, D. L. Mackas, and S. Cerniuk. 1990. Zooplankton distribution and associated biological, physical and chemical data: Barkley Sound, Vancouver Island, May and June 1989 (MASS Program). 109 p. (13)
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82. Burd, B. J., and R. O. Brinkhurst. 1990. Benthic infaunal survey of Alice Arm and Hastings Arm, B.C. - October, 1989. 23 p. (13)
84. Gregory, D. W., E. Verge, and P. Langille. 1990. Long-term temperature monitoring program 1989: Scotia-Fundy and the Gulf of St. Lawrence. 175 p. (6)

CANADIAN CONTRACTOR REPORT OF HYDROGRAPHY AND OCEAN SCIENCES/ RAPPORT CANADIEN DES ENTREPRENEURS SUR L'HYDROGRAPHIE ET LES SCIENCES OCEANIQUES

Abbreviation/Abréviation: CH

Contractor reports are unedited, final reports from scientific and technical projects contracted by the Department of Fisheries and Oceans. The contents of the reports are the responsibility of the contractor and do not necessarily reflect the official policies of the Department. If warranted, contractor reports may be rewritten for other publication series of the Department or for publication outside the government.

Contractor reports are not intended for general distribution and the contents must not be referred to in other publications without prior written authorization from the author. The reports are abstracted in *Aquatic sciences and fisheries abstracts* and are indexed annually in the Department's index to scientific and technical publications.

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CANADIAN TRANSLATION OF FISHERIES AND AQUATIC SCIENCES/
 TRADUCTION CANADIENNE DES SCIENCES HALIEUTIQUES ET AQUATIQUES

Abbreviation/Abréviation: TS

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- Diclidophoridae. 55 p. (Translated from Russian: Trudy biologo-pochvennogo instituta 35 (138): 57-80.)
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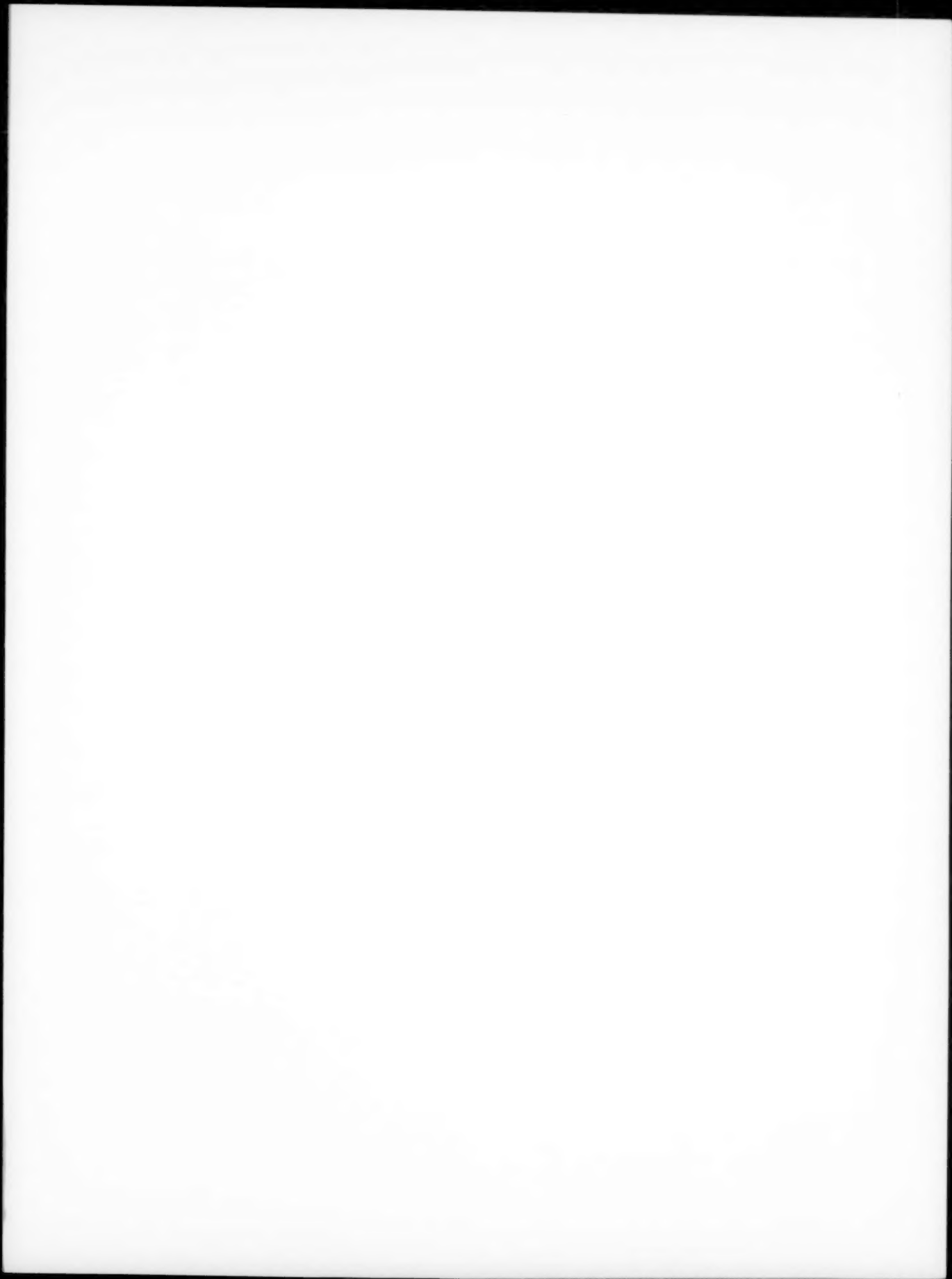
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CJFSDX47(Index) 2469-2598 (1990)
ISSN 0706-652X

Subscription rates/Abonnements

Canada: Institutional/Collectif \$200; Personal/Personnel \$75
Other countries/Autres pays : Institutional/Collectif \$240; Personal/Personnel \$90
Single issue/Par numéro : \$13.95 (Canada); \$16.75 (Other countries/Autres pays)

